

## **LLNL Livermore Site Third Quarter 2012 Self-Monitoring Report**

This quarterly report presents the third quarter 2012 self-monitoring data for the ground water and soil vapor treatment facilities at the Lawrence Livermore National Laboratory (LLNL) Livermore Site. The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the third quarter of 2012 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, chromium, and bioassay, turbidity, and chloride analyses (Tables A-1 through A-5). During the third quarter of 2012, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment C. The contour maps for the individual HSUs are based on data collected during the third quarter of 2012.

Extension of the Treatment Facility A (TFA) Arroyo Seco pipeline to offsite well W-404 was completed during the quarter. Ground water extraction from well W-404 and treatment at TFA began on September 13, meeting the September 30, 2012 milestone. As shown in Appendix A, additional samples were collected at TFA during September in response to the addition of well W-404.

**Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, July through September 2012.**

<b>Treatment Area<sup>a</sup></b>	<b>Month</b>	<b>Volume of ground water extracted (Kgal)<sup>b</sup></b>	<b>Volume of vapor extracted (Kcf)<sup>b</sup></b>
<b>TFA</b>	<b>July</b>	<b>10,456</b>	<b>-</b>
	<b>August</b>	<b>3,929</b>	<b>-</b>
	<b>September</b>	<b>6,758</b>	<b>-</b>
<b>TFB</b>	<b>July</b>	<b>2,041</b>	<b>-</b>
	<b>August</b>	<b>1,693</b>	<b>-</b>
	<b>September</b>	<b>1,378</b>	<b>-</b>
<b>TFC</b>	<b>July</b>	<b>2,991</b>	<b>-</b>
	<b>August</b>	<b>3,694</b>	<b>-</b>
	<b>September</b>	<b>3,475</b>	<b>-</b>
<b>TFD</b>	<b>July</b>	<b>7,666</b>	<b>1,389</b>
	<b>August</b>	<b>6,871</b>	<b>882</b>
	<b>September</b>	<b>6,314</b>	<b>0</b>
<b>TFE</b>	<b>July</b>	<b>2,199</b>	<b>975</b>
	<b>August</b>	<b>2,029</b>	<b>1,410</b>
	<b>September</b>	<b>1,860</b>	<b>1,651</b>
<b>TFG</b>	<b>July</b>	<b>564</b>	<b>-</b>
	<b>August</b>	<b>527</b>	<b>-</b>
	<b>September</b>	<b>459</b>	<b>-</b>
<b>TFH</b>	<b>July</b>	<b>785</b>	<b>2,209</b>
	<b>August</b>	<b>676</b>	<b>2,075</b>
	<b>September</b>	<b>645</b>	<b>1,904</b>
<b>TOTAL<sup>c</sup></b>		<b>67,010</b>	<b>12,495</b>

<sup>a</sup> Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E, TFA-W

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

<sup>b</sup> Totals are derived from individual extraction wells shown in Attachment B.

<sup>c</sup> Rounded number.

Kcf = thousands of cubic feet.

Kgal = thousands of gallons.

**Table 2. VOC mass removed at the Livermore Site, July through September 2012.**

<b>Treatment Area<sup>a</sup></b>	<b>VOC mass removed from ground water (kg)</b>	<b>VOC mass removed from soil vapor (kg)</b>	<b>Total VOC mass removed (kg)<sup>b</sup></b>
<b>TFA</b>	<b>0.7</b>	<b>-</b>	<b>0.7</b>
<b>TFB</b>	<b>0.3</b>	<b>-</b>	<b>0.3</b>
<b>TFC</b>	<b>1.1</b>	<b>-</b>	<b>1.1</b>
<b>TFD</b>	<b>6.7</b>	<b>0.3</b>	<b>7.0</b>
<b>TFE</b>	<b>2.1</b>	<b>0.8</b>	<b>2.9</b>
<b>TFG</b>	<b>0.1</b>	<b>-</b>	<b>0.1</b>
<b>TFH</b>	<b>0.6</b>	<b>5.8</b>	<b>6.4</b>
<b>TOTAL<sup>b</sup></b>	<b>11.6</b>	<b>6.9</b>	<b>18.5</b>

**Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through September 2012.**

<b>Treatment Area<sup>a</sup></b>	<b>Volume of ground water extracted (Mgal)</b>	<b>Volume of vapor extracted (Mcf)</b>
<b>TFA</b>	<b>1,935</b>	<b>-</b>
<b>TFB</b>	<b>457</b>	<b>-</b>
<b>TFC</b>	<b>512</b>	<b>-</b>
<b>TFD</b>	<b>1,058</b>	<b>106</b>
<b>TFE</b>	<b>383</b>	<b>171</b>
<b>TFG</b>	<b>85</b>	<b>-</b>
<b>TFH</b>	<b>169</b>	<b>249</b>
<b>TOTAL<sup>b</sup></b>	<b>4,599</b>	<b>526</b>

**Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through September 2012.**

<b>Treatment Area<sup>a</sup></b>	<b>VOC mass removed from ground water (kg)</b>	<b>VOC mass removed from soil vapor (kg)</b>	<b>Total VOC mass removed (kg)<sup>b</sup></b>
<b>TFA</b>	<b>210</b>	<b>-</b>	<b>210</b>
<b>TFB</b>	<b>81</b>	<b>-</b>	<b>81</b>
<b>TFC</b>	<b>107</b>	<b>-</b>	<b>107</b>
<b>TFD</b>	<b>859</b>	<b>95</b>	<b>954</b>
<b>TFE</b>	<b>224</b>	<b>151</b>	<b>375</b>
<b>TFG</b>	<b>12</b>	<b>-</b>	<b>12</b>
<b>TFH</b>	<b>40</b>	<b>1,252</b>	<b>1,292</b>
<b>TOTAL<sup>b</sup></b>	<b>1,533</b>	<b>1,498</b>	<b>3,031</b>

<sup>a</sup> Refer to Table 1 footnote for facilities in each treatment facility area.<sup>b</sup> Rounded number.

Abbreviations for Tables 2, 3 and 4:

kg = Kilograms.

Mcf = millions of cubic feet.

Mgal = millions of gallons.

VOC = Volatile organic compound.

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## **Attachment A**

### **VOC and Chromium Analyses**

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Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFA<sup>a</sup></b>													
TFA-I001	05-JUL-12	E601	<0.5	<b>0.89</b>	<b>0.84</b>	<0.5	<b>1.1</b>	<1	<0.5	<b>6.2</b>	<0.5	<b>0.62</b>	<0.5
TFA-I001	01-AUG-12	E601	<0.5	<b>0.93</b>	<b>0.87</b>	<0.5	<b>1.2</b>	<1	<0.5	<b>6.4</b>	<0.5	<b>0.72</b>	<0.5
TFA-I001	13-SEP-12	E624	<1	<1	<1	<1	<b>1.2</b>	<1	<1	<b>6.2</b>	<1	<b>0.63</b>	<1
TFA-I001	25-SEP-12	E601	<0.5	<b>0.83</b>	<b>0.77</b>	<0.5	<b>1.2</b>	<1	<0.5	<b>6</b>	<0.5	<b>0.65</b>	<0.5
TFA-I001	28-SEP-12	E601	<0.5	<b>0.78</b>	<b>0.86</b>	<0.5	<b>1.4</b>	<1	<0.5	<b>6.6</b>	<0.5	<b>0.73</b>	<0.5
TFA-E001	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	13-SEP-12	E624	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
<b>TFA-E</b>													
W-254	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<b>0.61</b>	<1	<0.5	<b>39</b>	<0.5	<b>1.2</b>	<0.5
STU06-I	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<b>0.58</b>	<1	<0.5	<b>38</b>	<0.5	<b>1.1</b>	<0.5
STU06-I	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<b>0.71</b>	<1	<0.5	<b>41</b>	<0.5	<b>1.5</b>	<0.5
STU06-E	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFA-W<sup>b</sup></b>													
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<b>TFB</b>													
TFB-I002	05-JUL-12	E601	<0.5	<b>1.9</b>	<0.5	<0.5	<b>1.1</b>	<1	<b>1.7</b>	<b>0.78</b>	<0.5	<b>8.6</b>	<0.5
TFB-I002	01-AUG-12	E601	<b>0.5</b>	<b>1.8</b>	<0.5	<0.5	<b>1.1</b>	<1	<b>1.8</b>	<b>0.74</b>	<0.5	<b>8.6</b>	<0.5
TFB-I002	04-SEP-12	E601	<0.5	<b>1.7</b>	<0.5	<0.5	<b>1</b>	<1	<b>1.6</b>	<b>0.53</b>	<0.5	<b>7.1</b>	<0.5
TFB-E002	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFC</b>													
TFC-I003	05-JUL-12	E601	<0.5	<b>0.87</b>	<0.5	<0.5	<b>0.54</b>	<1	<b>8</b>	<b>2.8</b>	<0.5	<b>9.2</b>	<0.5
TFC-I003	01-AUG-12	E601	<0.5	<b>0.87</b>	<0.5	<0.5	<b>0.61</b>	<1	<b>7.8</b>	<b>3</b>	<0.5	<b>10</b>	<0.5
TFC-I003	04-SEP-12	E601	<0.5	<b>0.89</b>	<0.5	<0.5	<b>0.64</b>	<1	<b>8.9</b>	<b>2.7</b>	<0.5	<b>10</b>	<0.5
TFC-E003	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFC-E</b>													
MTU1-I	02-JUL-12	E601	<0.5	14	<0.5	<0.5	0.99	<1	13	0.68	<0.5	9.2	5
MTU1-I	02-AUG-12	E601	<0.5	12	<0.5	<0.5	0.68	<1	8	0.61	<0.5	8.1	2.9
MTU1-I	05-SEP-12	E601	<0.5	14	<0.5	<0.5	0.92	<1	11	0.73	<0.5	9.8	4.4
MTU1-E	02-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFC-SE</b>													
PTU1-I	09-JUL-12	E601	<0.5	6.8	<0.5	<0.5	2.2	<1	14	0.59	<0.5	16	0.9
PTU1-I	02-AUG-12	E601	<0.5	6.9	<0.5	<0.5	2.4	<1	15	0.63	<0.5	18	0.94
PTU1-I	05-SEP-12	E601	<0.5	7.2	<0.5	<0.5	2.3	<1	15	0.65	<0.5	16	1
PTU1-E	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD</b>													
TFD-I004	09-JUL-12	E601	2.1	2.2	<0.5	<0.5	0.89	<1	0.59	1.5	<0.5	53	16
TFD-I004	02-AUG-12	E601	2.2	2.2	<0.5	<0.5	0.99	<1	0.66	1.8	<0.5	58	16
TFD-I004	04-SEP-12	E601	2.2	2.4	<0.5	<0.5	1	<1	0.66	1.7	<0.5	55	16
TFD-E004	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-E</b>													
PTU8-I	02-JUL-12	E601	3.2	1.4	<0.5	<0.5	1.7	<1	<0.5	2.7	<0.5	76	0.77
PTU8-I	02-AUG-12	E601	3.2	1.3	<0.5	<0.5	1	<1	<0.5	1.6	<0.5	66	<0.5
PTU8-I	05-SEP-12	E601	3.2	1.3	<0.5	0.71	2.5	<1	<0.5	3	<0.5	71	0.79
PTU8-E	02-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-HPD<sup>c</sup></b>													
<b>TFD-S</b>													
PTU2-I	12-JUL-12	E601	0.87	1.7	<0.5	<0.5	3	<1	1	5.7	<0.5	50	<0.5

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFD-S (cont.)</b>													
PTU2-I	14-AUG-12	E601	<b>0.93</b>	<b>2</b>	<0.5	<0.5	<b>3.6</b>	<1	<b>1.2</b>	<b>6.1</b>	<0.5	<b>55</b>	<0.5
PTU2-I	18-SEP-12	E601	<b>0.96</b>	<b>2.1</b>	<0.5	<0.5	<b>4.1</b>	<1	<b>1.3</b>	<b>5.8</b>	<0.5	<b>53</b>	<0.5
PTU2-E	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	14-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-SE<sup>d</sup></b>													
PTU11-I	02-JUL-12	E601	<b>0.69</b>	<b>5.4</b>	<b>0.72</b>	<b>1.6</b>	<b>10</b>	<1	<b>2</b>	<b>34</b>	<0.5	<b>100</b>	<0.5
PTU11-I	02-AUG-12	E601	<b>0.87</b>	<b>6.2</b>	<b>0.7</b>	<b>1.8</b>	<b>10</b>	<1	<b>2.4</b>	<b>35</b>	<0.5	<b>140</b>	<0.5
PTU11-E	02-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-SS</b>													
PTU12-I	12-JUL-12	E601	<b>1.9</b>	<b>2.1</b>	<b>0.57</b>	<b>2.3</b>	<b>8.1</b>	<1	<b>0.53</b>	<b>20</b>	<0.5	<b>110</b>	<b>5.6</b>
PTU12-I	14-AUG-12	E601	<b>2</b>	<b>2.3</b>	<b>0.71</b>	<b>2.4</b>	<b>10</b>	<1	<b>0.6</b>	<b>22</b>	<0.5	<b>98</b>	<b>5.4</b>
PTU12-I	18-SEP-12	E601	<b>1.9</b>	<b>2.4</b>	<b>0.73</b>	<b>2.4</b>	<b>11</b>	<1	<b>0.65</b>	<b>21</b>	<0.5	<b>120</b>	<b>6.1</b>
PTU12-E	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	14-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFD-W</b>													
PTU6-I	11-JUL-12	E601	<0.5	<b>4.1</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.5</b>	<b>44</b>
PTU6-I	08-AUG-12	E601	<0.5	<b>4.7</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>5.2</b>	<b>47</b>
PTU6-I	13-SEP-12	E601	<0.5	<b>5</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.9</b>	<b>48</b>
PTU6-E	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-E</b>													
PTU3-I	09-JUL-12	E601	<0.5	<b>2.2</b>	<0.5	<0.5	<b>10</b>	<1	<b>7.2</b>	<b>13</b>	<0.5	<b>66</b>	<0.5
PTU3-I	01-AUG-12	E601	<0.5	<b>2.4</b>	<0.5	<0.5	<b>7.8</b>	<1	<b>7.3</b>	<b>9.5</b>	<0.5	<b>57</b>	<0.5
PTU3-I	04-SEP-12	E601	<0.5	<b>2.4</b>	<0.5	<0.5	<b>7.3</b>	<1	<b>7.1</b>	<b>8.2</b>	<0.5	<b>57</b>	<0.5
PTU3-E	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-E (cont.)</b>													
PTU3-E	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-HS</b>													
W-2105	17-JUL-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<b>3.2</b>	<b>3.6</b>	<b>6.1</b>	<b>14</b>	<0.5	<b>270</b>	<0.5
GTU07-I	17-JUL-12	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2.1</b>	<b>3.2</b>	<b>5.4</b>	<b>13</b>	<0.5	<b>250</b>	<0.5
GTU07-I	08-AUG-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<b>2.3</b>	<b>3.6</b>	<b>5.5</b>	<b>14</b>	<0.5	<b>200</b>	<0.5
GTU07-I	04-SEP-12	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2.7</b>	<b>2.8</b>	<b>4.9</b>	<b>13</b>	<0.5	<b>290</b>	<0.5
GTU07-E	17-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-NW</b>													
PTU9-I	11-JUL-12	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<0.5	<1	<b>0.95</b>	<0.5	<0.5	<b>11</b>	<0.5
PTU9-I	14-AUG-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<0.5	<1	<b>1.1</b>	<0.5	<0.5	<b>12</b>	<0.5
PTU9-I	18-SEP-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<0.5	<1	<b>1.2</b>	<0.5	<0.5	<b>11</b>	<0.5
PTU9-E	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	14-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-SE</b>													
W-359	09-JUL-12	E601	<b>4.2</b>	<b>1.5</b>	<0.5	<0.5	<b>19</b>	<1	<b>5.5</b>	<b>10</b>	<0.5	<b>230</b>	<b>1.1</b>
MTU04-I	01-AUG-12	E601	<b>4</b>	<b>1.5</b>	<0.5	<0.5	<b>18</b>	<1	<b>5.3</b>	<b>10</b>	<0.5	<b>240</b>	<b>1</b>
MTU04-I	04-SEP-12	E601	<b>3.8</b>	<b>1.5</b>	<0.5	<0.5	<b>18</b>	<1	<b>5.4</b>	<b>8.9</b>	<0.5	<b>220</b>	<b>1</b>
MTU04-E	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	01-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	04-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFE-SW</b>													
MTU03-I	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<b>1.4</b>	<b>1.4</b>	<b>3.2</b>	<b>1.1</b>	<0.5	<b>14</b>	<0.5
MTU03-I	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<b>1.8</b>	<b>1.7</b>	<b>3.5</b>	<b>1</b>	<0.5	<b>14</b>	<0.5
MTU03-I	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<b>1.6</b>	<b>1.7</b>	<b>3.2</b>	<b>0.96</b>	<0.5	<b>15</b>	<0.5
MTU03-E	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-W</b>													
MTU05-I	12-JUL-12	E601	<0.5	<b>0.96</b>	<0.5	<0.5	<b>1.4</b>	<1	<b>13</b>	<b>6.5</b>	<0.5	<b>29</b>	<b>0.58</b>
MTU05-I	08-AUG-12	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2</b>	<1	<b>14</b>	<b>7</b>	<0.5	<b>32</b>	<b>0.55</b>
MTU05-I	13-SEP-12	E601	<0.5	<b>1.1</b>	<0.5	<0.5	<b>2.1</b>	<b>1.1</b>	<b>13</b>	<b>6</b>	<0.5	<b>28</b>	<b>0.56</b>
MTU05-E	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFG-1</b>													
W-1111	10-JUL-12	E601	<b>2.8</b>	<b>11</b>	<0.5	<0.5	<b>0.82</b>	<1	<0.5	<b>1</b>	<0.5	<b>4</b>	<0.5
GTU01-I	09-AUG-12	E601	<b>2.9</b>	<b>11</b>	<0.5	<0.5	<b>0.84</b>	<1	<0.5	<b>1</b>	<0.5	<b>4.2</b>	<0.5
GTU01-I	18-SEP-12	E601	<b>2.8</b>	<b>11</b>	<0.5	<0.5	<b>0.86</b>	<1	<b>0.52</b>	<b>0.94</b>	<0.5	<b>4</b>	<0.5
GTU01-E	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	09-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TFG-N</b>													
MTU02-I	10-JUL-12	E601	<0.5	<b>1.6</b>	<0.5	<0.5	<b>1.1</b>	<1	<b>1.1</b>	<b>15</b>	<0.5	<b>4.8</b>	<0.5
MTU02-I	09-AUG-12	E601	<0.5	<b>1.7</b>	<0.5	<0.5	<b>1.1</b>	<1	<b>1</b>	<b>15</b>	<0.5	<b>5.2</b>	<0.5
MTU02-I	18-SEP-12	E601	<0.5	<b>1.5</b>	<0.5	<0.5	<b>1.3</b>	<1	<b>1.1</b>	<b>15</b>	<0.5	<b>5.3</b>	<0.5
MTU02-E	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	09-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF406</b>													
PTU5-I	11-JUL-12	E601	<0.5	<b>0.64</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>3.9</b>	<0.5
PTU5-I	08-AUG-12	E601	<0.5	<b>0.55</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.9</b>	<0.5
PTU5-I	13-SEP-12	E601	<0.5	<b>0.5</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4.4</b>	<0.5
PTU5-E	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	08-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	13-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF406-NW</b>													
W-1801	11-JUL-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<0.5	<1	<b>3.9</b>	<b>0.66</b>	<0.5	<b>22</b>	<0.5
GTU03-I	09-AUG-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<0.5	<1	<b>4.1</b>	<b>0.74</b>	<0.5	<b>23</b>	<0.5
GTU03-I	18-SEP-12	E601	<0.5	<b>1.3</b>	<0.5	<0.5	<0.5	<1	<b>3.4</b>	<b>0.61</b>	<0.5	<b>20</b>	<0.5

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

Sample Station	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TF406-NW (cont.)</b>													
GTU03-E	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	09-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	18-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF518-N<sup>e</sup></b>													
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<b>TF5475-1<sup>f</sup></b>													
W-1302-2	26-SEP-12	E601	<b>1.8</b>	<b>39</b>	<b>1.5</b>	<b>5.5</b>	<b>24</b>	<b>2.1</b>	<b>6.2</b>	<b>34</b>	<0.5	<b>260</b>	<0.5
<b>TF5475-2</b>													
GTU09-I	02-JUL-12	E601	<b>1.7</b>	<b>18</b>	<b>0.65</b>	<b>2.1</b>	<b>14</b>	<1	<b>4.4</b>	<b>31</b>	<0.5	<b>280</b>	<0.5
GTU09-I	02-AUG-12	E601	<b>2.1</b>	<b>20</b>	<b>0.63</b>	<b>2.7</b>	<b>16</b>	<1	<b>5.8</b>	<b>36</b>	<0.5	<b>290</b>	<0.5
GTU09-I	05-SEP-12	E601	<b>2.1</b>	<b>20</b>	<b>0.67</b>	<b>2.8</b>	<b>17</b>	<1	<b>6.1</b>	<b>32</b>	<0.5	<b>300</b>	<0.5
GTU09-E	02-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	02-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	05-SEP-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
<b>TF5475-3<sup>g</sup></b>													
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Notes on following page.

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

<sup>a</sup> TFA underwent testing & verification and compliance sampling beginning September 13, 2012, due to the completion of the TFA Arroyo Seco pipeline to the former TFA West extraction well W-404.

<sup>b</sup> TFA-W no longer exists. Offsite well W-404 was connected to TFA in September 2012.

The extension of the pipeline to well W-404 was completed in September 2012 and was first operated as part of the TFA wellfield on September 13, 2012.

<sup>c</sup> TFD-HPD has been modified to operate as a circulation cell to perform *in situ* bioremediation of contaminated ground water and sediments.

<sup>d</sup> TFD-SE did not operate during the month of September due to being secured to implement facility upgrades (REVAL).

<sup>f</sup> TF518-N did not operate during this reporting period due to mixed waste disposition issues.

<sup>g</sup> TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

<sup>h</sup> TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CCl<sub>4</sub> = Carbon tetrachloride

CHCl<sub>3</sub> = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFA</b>													
W-109	13-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>1.5</b>	<0.5	<0.5	<0.5
W-262	13-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-404 <sup>a</sup>	26-JAN-12	E601	<0.5	<0.5	<b>1.1</b>	<0.5	<b>1.8</b>	<1	<0.5	<b>10</b>	<0.5	<b>0.53</b>	<0.5
W-408	13-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>0.51</b>	<0.5	<0.5	<0.5
W-415	13-JUL-12	E601	<0.5	<b>1.4</b>	<b>0.59</b>	<0.5	<b>1.2</b>	<1	<0.5	<b>11</b>	<0.5	<b>0.89</b>	<0.5
W-457	13-JUL-12	E601	<0.5	<0.5	<b>1</b>	<0.5	<b>0.92</b>	<1	<0.5	<b>5.9</b>	<0.5	<0.5	<0.5
W-518	13-JUL-12	E601	<0.5	<0.5	<b>8.9</b>	<0.5	<b>3.7</b>	<1	<0.5	<b>3.3</b>	<0.5	<0.5	<0.5
W-522	13-JUL-12	E601	<0.5	<0.5	<b>1.7</b>	<0.5	<b>1</b>	<1	<0.5	<b>3.2</b>	<0.5	<0.5	<0.5
W-605	13-JUL-12	E601	<0.5	<b>0.62</b>	<b>0.84</b>	<0.5	<b>1</b>	<1	<0.5	<b>16</b>	<0.5	<b>0.79</b>	<0.5
W-614	13-JUL-12	E601	<0.5	<b>0.55</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>5.5</b>	<0.5	<0.5	<0.5
W-712	13-JUL-12	E601	<b>2.9</b>	<b>3.1</b>	<b>1.3</b>	<0.5	<b>3.4</b>	<1	<0.5	<b>1.9</b>	<0.5	<b>3.2</b>	<0.5
W-714	13-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>7.3</b>	<0.5	<0.5	<0.5
W-903	13-JUL-12	E601	<0.5	<0.5	<b>1.1</b>	<0.5	<b>0.76</b>	<1	<0.5	<b>4.1</b>	<0.5	<0.5	<0.5
W-904	13-JUL-12	E601	<0.5	<0.5	<b>0.75</b>	<0.5	<b>1</b>	<1	<0.5	<b>5.7</b>	<0.5	<0.5	<0.5
W-1001	13-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	13-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<b>2.1</b>	<0.5	<0.5	<0.5
W-1009	13-JUL-12	E601	<b>1.2</b>	<b>5.3</b>	<b>0.78</b>	<0.5	<b>2.9</b>	<1	<b>0.57</b>	<b>10</b>	<0.5	<b>1.8</b>	<0.5
<b>TFA-E</b>													
W-254	10-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<b>0.61</b>	<1	<0.5	<b>39</b>	<0.5	<b>1.2</b>	<0.5
<b>TFA-W<sup>b</sup></b>													
W-404 <sup>a</sup>	26-JAN-12	E601	<0.5	<0.5	<b>1.1</b>	<0.5	<b>1.8</b>	<1	<0.5	<b>10</b>	<0.5	<b>0.53</b>	<0.5
<b>TFB</b>													
W-357	05-JUL-12	E601	<b>1.4</b>	<b>2.8</b>	<0.5	<0.5	<b>1.4</b>	<1	<b>3.9</b>	<b>1.1</b>	<0.5	<b>32</b>	<0.5
W-610	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<b>1</b>	<1	<b>1.4</b>	<b>0.65</b>	<0.5	<b>1.5</b>	<0.5
W-620	05-JUL-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<b>1.1</b>	<1	<b>2</b>	<b>1.2</b>	<0.5	<b>4.4</b>	<0.5
W-621	04-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>0.91</b>	<0.5	<0.5	<b>2.2</b>	<0.5
W-655	04-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>4.6</b>	<0.5	<0.5	<b>1.3</b>	<0.5
W-704	05-JUL-12	E601	<b>0.55</b>	<b>3.6</b>	<0.5	<0.5	<b>1.9</b>	<1	<b>5.2</b>	<b>2.7</b>	<0.5	<b>18</b>	<0.5
W-1423	05-JUL-12	E601	<b>0.79</b>	<b>4.8</b>	<0.5	<0.5	<b>3</b>	<1	<b>2.9</b>	<b>1.8</b>	<0.5	<b>9.1</b>	<0.5
W-2501	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>1.1</b>	<0.5	<0.5	<b>8.3</b>	<0.5
W-2502	05-JUL-12	E601	<b>0.89</b>	<b>4.5</b>	<0.5	<0.5	<b>2.1</b>	<1	<0.5	<0.5	<0.5	<b>2</b>	<0.5
<b>TFC</b>													
W-701	05-JUL-12	E601	<0.5	<b>1.9</b>	<0.5	<0.5	<b>1.2</b>	<1	<b>23</b>	<b>3.7</b>	<0.5	<b>21</b>	<0.5
W-1015	05-JUL-12	E601	<0.5	<b>0.5</b>	<0.5	<0.5	<b>0.7</b>	<1	<b>1.7</b>	<b>1</b>	<0.5	<b>4.5</b>	<0.5
W-1102	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<b>2.6</b>	<0.5	<0.5	<b>1.4</b>	<0.5



Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFC (cont.)</b>													
W-1103	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.2	<0.5
W-1104	05-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	1.7	3.1	<0.5	5.5	<0.5
W-1116	05-JUL-12	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	5.9	3.5	<0.5	7.9	<0.5
<b>TFC-E</b>													
W-368	02-JUL-12	E601	<0.5	7.4	<0.5	<0.5	0.5	<1	20	2.8	<0.5	14	5
W-413	02-JUL-12	E601	<0.5	15	<0.5	<0.5	1	<1	12	<0.5	<0.5	8.4	5
<b>TFC-SE</b>													
W-1213	09-JUL-12	E601	<0.5	5.9	<0.5	<0.5	2.5	<1	9.4	<0.5	<0.5	15	<0.5
W-2201	09-JUL-12	E601	<0.5	7.5	<0.5	<0.5	2.2	<1	17	0.76	<0.5	16	1.2
<b>TFD</b>													
W-351	09-JUL-12	E601	28	5	<0.5	0.96	5.9	<1	4.9	7.1	<0.5	550	1.1
W-653	09-JUL-12	E601	25	6.9	<0.5	<0.5	0.79	<1	3.2	0.88	<0.5	740	<0.5
W-906	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.9	<0.5
W-907-2	09-JUL-12	E601	<0.5	3.8	<0.5	<0.5	2.4	<1	0.93	4.7	<0.5	53	<0.5
W-2011	09-JUL-12	E601	0.74	0.86	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	12	<0.5
W-2101	09-JUL-12	E601	5.4	2.3	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	190	<0.5
W-2102	09-JUL-12	E601	12	4.7	<0.5	<0.5	<0.5	<1	1.3	0.5	<0.5	440	0.73
W-1206	09-JUL-12	E601	0.89	1.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	16	<0.5
W-1208	09-JUL-12	E601	2.4	2	<0.5	<0.5	<0.5	<1	<0.5	0.69	<0.5	50	34
<b>TFD-E</b>													
W-2006	02-JUL-12	E601	0.54	1.2	1.4	4	40	<1	<0.5	43	<0.5	220	<0.5
W-1301	02-JUL-12	E601	<0.5	0.6	<0.5	<0.5	3.4	<1	<0.5	6.2	<0.5	19	<0.5
W-1303	02-JUL-12	E601	4.3	2.6	0.8	2.4	5.7	<1	<0.5	7.7	<0.5	160	4.2
W-1306	02-JUL-12	E601	2	2	<0.5	<0.5	<0.5	<1	<0.5	2.1	<0.5	58	<0.5
W-1307	02-JUL-12	E601	2.7	0.66	<0.5	<0.5	<0.5	<1	<0.5	0.59	<0.5	35	<0.5
W-1550	02-JUL-12	E601	3.8	3.6	<0.5	<0.5	<0.5	<1	<0.5	1.4	<0.5	140	<0.5
W-2203	02-JUL-12	E601	8.6	2.2	<0.5	<0.5	1.5	<1	1.6	5	<0.5	100	<0.5
<b>TFD-HPD</b>													
W-1254	20-SEP-12	E601	1.5	0.51	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	40	<0.5
W-1650	31-JUL-12	E601	1.9	1.6	<0.5	<0.5	<0.5	1.6	1.3	<0.5	<0.5	120	<0.5
W-1653	31-JUL-12	E601	0.77	1.8	<0.5	<0.5	<0.5	3.2	<0.5	0.78	<0.5	99	<0.5
W-1655	31-JUL-12	E601	0.52	2.1	<0.5	<0.5	<0.5	<1	<0.5	2.6	<0.5	63	<0.5
W-1657	31-JUL-12	E601	4.8	2.5	<0.5	<0.5	<0.5	2.1	2.2	0.52	<0.5	390	<0.5

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFD-S</b>													
W-1503	12-JUL-12	E601	<b>1.8</b>	<b>1.7</b>	<0.5	<0.5	<b>1.2</b>	<1	<0.5	<b>1.9</b>	<0.5	<b>48</b>	<0.5
W-1504	12-JUL-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<b>7</b>	<b>1</b>	<b>2.3</b>	<b>13</b>	<0.5	<b>74</b>	<0.5
W-1510	12-JUL-12	E601	<0.5	<b>2.7</b>	<0.5	<0.5	<b>1.4</b>	<1	<0.5	<b>2.8</b>	<0.5	<b>21</b>	<0.5
<b>TFD-SE</b>													
W-314	02-JUL-12	E601	<b>0.57</b>	<b>5.2</b>	<b>0.54</b>	<b>0.91</b>	<b>5</b>	<1	<b>2.4</b>	<b>9.8</b>	<0.5	<b>84</b>	<0.5
W-2005 <sup>a</sup>	01-MAY-12	E601	<0.5	<b>0.7</b>	<0.5	<0.5	<b>2.2</b>	<1	<0.5	<b>19</b>	<0.5	<b>24</b>	<0.5
W-1308	02-JUL-12	E601	<0.5	<b>1.3</b>	<b>0.94</b>	<b>2.2</b>	<b>13</b>	<1	<0.5	<b>82</b>	<0.5	<b>93</b>	<0.5
W-1403	02-JUL-12	E601	<b>2</b>	<b>15</b>	<b>1.2</b>	<b>4.6</b>	<b>34</b>	<1	<b>3.5</b>	<b>79</b>	<0.5	<b>310</b>	<0.5
W-1904	23-AUG-12	E601	<0.5	<0.5	<0.5	<0.5	<b>6.7</b>	<1	<0.5	<b>15</b>	<0.5	<b>15</b>	<0.5
SIP-ETC-201	23-AUG-12	E601	<0.5	<b>0.89</b>	<b>3.1</b>	<b>1.2</b>	<b>68</b>	<1	<0.5	<b>450</b>	<0.5	<b>300</b>	<0.5
<b>TFD-SS</b>													
W-1523	12-JUL-12	E601	<b>3.5</b>	<b>3.1</b>	<0.5	<b>1.2</b>	<b>6.8</b>	<1	<b>1.2</b>	<b>18</b>	<0.5	<b>110</b>	<0.5
W-1601	12-JUL-12	E601	<b>4.2</b>	<b>3.5</b>	<b>1.2</b>	<b>5.2</b>	<b>21</b>	<1	<b>1.2</b>	<b>93</b>	<0.5	<b>240</b>	<0.5
W-1602	12-JUL-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<0.5	<1	<0.5	<b>1.3</b>	<0.5	<b>11</b>	<b>5.4</b>
W-1603	12-JUL-12	E601	<b>1.5</b>	<b>1.8</b>	<b>0.79</b>	<b>3.1</b>	<b>11</b>	<1	<0.5	<b>24</b>	<0.5	<b>140</b>	<b>8.8</b>
<b>TFD-W</b>													
W-1215	11-JUL-12	E601	<0.5	<b>6.6</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>4</b>	<b>20</b>
W-1216	11-JUL-12	E601	<0.5	<b>3.9</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>3.2</b>	<b>35</b>
W-1902	11-JUL-12	E601	<b>0.54</b>	<b>2.6</b>	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<b>5.3</b>	<b>62</b>
<b>TFE-E</b>													
W-566	09-JUL-12	E601	<b>0.53</b>	<b>2.7</b>	<0.5	<0.5	<b>4.1</b>	<1	<b>7.4</b>	<b>3.2</b>	<0.5	<b>39</b>	<0.5
W-1109	09-JUL-12	E601	<0.5	<b>0.65</b>	<0.5	<0.5	<b>26</b>	<1	<b>4.8</b>	<b>51</b>	<0.5	<b>170</b>	<0.5
W-1903	09-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<b>16</b>	<1	<b>5.3</b>	<b>16</b>	<0.5	<b>31</b>	<0.5
W-1909 <sup>a</sup>	14-NOV-11	E601	<0.5	<0.5	<0.5	<0.5	<b>9.1</b>	<b>1.1</b>	<0.5	<b>5.4</b>	<0.5	<b>6.5</b>	<0.5
W-2305	09-JUL-12	E601	<0.5	<b>1.6</b>	<b>0.61</b>	<0.5	<b>53</b>	<1	<b>17</b>	<b>75</b>	<0.5	<b>180</b>	<0.5
<b>TFE-HS</b>													
W-2105	17-JUL-12	E601	<0.5	<b>1.2</b>	<0.5	<0.5	<b>3.2</b>	<b>3.6</b>	<b>6.1</b>	<b>14</b>	<0.5	<b>270</b>	<0.5
<b>TFE-NW</b>													
W-1211	11-JUL-12	E601	<0.5	<b>1.3</b>	<0.5	<0.5	<0.5	<1	<b>1.2</b>	<0.5	<0.5	<b>8</b>	<0.5
W-1409	11-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<b>0.52</b>	<1	<0.5	<b>1.1</b>	<0.5	<b>18</b>	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> -<	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TFE-SE</b>													
W-359	09-JUL-12	E601	4.2	1.5	<0.5	<0.5	19	<1	5.5	10	<0.5	230	1.1
<b>TFE-SW</b>													
W-1518	12-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	1.3	1.3	3.4	1.1	<0.5	14	<0.5
W-1520	12-JUL-12	E601	9.5	7.2	<0.5	4.7	1.9	1.8	<0.5	14	<0.5	330	<0.5
W-1522	12-JUL-12	E601	1.7	2.4	0.78	<0.5	5.5	12	1.8	1.6	<0.5	74	<0.5
<b>TFE-W</b>													
W-292	12-JUL-12	E601	<0.5	0.74	<0.5	<0.5	0.77	2	1.3	1.2	<0.5	18	<0.5
W-305	12-JUL-12	E601	<0.5	1.1	<0.5	<0.5	2	<1	18	9.1	<0.5	34	0.8
<b>TFG-1</b>													
W-1111	10-JUL-12	E601	2.8	11	<0.5	<0.5	0.82	<1	<0.5	1	<0.5	4	<0.5
<b>TFG-N</b>													
W-1806	10-JUL-12	E601	<0.5	0.98	<0.5	<0.5	0.52	<1	<0.5	13	<0.5	3.1	<0.5
W-1807	10-JUL-12	E601	<0.5	1.9	<0.5	<0.5	1.4	<1	1.6	18	<0.5	5.8	<0.5
<b>TF406</b>													
W-1309	11-JUL-12	E601	0.53	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.8	<0.5
W-1310	11-JUL-12	E601	<0.5	0.61	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4	<0.5
<b>TF406-NW</b>													
W-1801	11-JUL-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	3.9	0.66	<0.5	22	<0.5
<b>TF518-N<sup>b</sup></b>													
W-1410 <sup>a</sup>	16-JUN-11	E601	3.4	3.1	<0.5	0.66	<0.5	<1	<0.5	0.78	<0.5	26	<0.5
<b>TF518-PZ</b>													
W-1615	16-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	2.6	<1	<0.5	24	<0.5	110	<0.5
W-518-1913 <sup>a</sup>	23-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	0.76	<1	<0.5	3.8	<0.5	29	<0.5
W-518-1914	16-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	100	<0.5	13	<0.5
W-518-1915 <sup>c</sup>	16-JUL-12	E601	<2.5	<2.5	<2.5	<2.5	6.4	<5	<2.5	83	<2.5	890	<2.5
SVB-518-201 <sup>a</sup>	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	35	<0.5	8.5	<0.5
SVB-518-204 <sup>a</sup>	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5
<b>TF5475-1<sup>b</sup></b>													
W-1302-2	26-SEP-12	E601	1.8	39	1.5	5.5	24	2.1	6.2	34	<0.5	260	<0.5

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>TF5475-2</b>													
W-1108	02-JUL-12	E601	2.1	20	0.68	2.7	16	<1	6.3	37	<0.5	280	<0.5
W-1415	02-JUL-12	E601	1.6	19	1	1.2	17	<1	1.5	31	<0.5	290	<0.5
<b>TF5475-3<sup>b</sup></b>													
W-1604 <sup>c</sup>	26-SEP-12	E601	3.7	60	1.9	17	32	3	12	69	<1.2	860	<1.2
W-1605	26-SEP-12	E601	<0.5	15	<0.5	2	1.6	62	<0.5	4.7	<0.5	36	<0.5
W-1608	26-SEP-12	E601	<0.5	28	0.69	2.7	2.8	32	<0.5	9.2	<0.5	84	<0.5
W-1609	26-SEP-12	E601	<0.5	11	<0.5	0.76	2.5	7.1	<0.5	15	<0.5	90	<0.5

Notes on following page.

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

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<sup>a</sup> Most recent VOC sample results available.

<sup>b</sup> Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

<sup>c</sup> Elevated detection limit due to dilution.

Notes:

CCl<sub>4</sub> = Carbon tetrachloride

CHCl<sub>3</sub> = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>VTFD-ETCS<sup>a</sup></b>													
W-1904	12-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.024</b>	<0.005	<0.005	<b>0.34</b>	<0.005	<b>0.14</b>	<0.005
W-ETC-2003	12-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.089</b>	<0.005	<b>0.032</b>	<0.005
W-ETC-2004A	12-JUL-12	TO15DIT	<0.005	<b>0.012</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.26</b>	<0.005	<b>0.1</b>	<0.005
W-ETC-2004B	12-JUL-12	TO15DIT	<0.005	<b>0.012</b>	<b>0.0052</b>	<0.005	<b>0.085</b>	<0.005	<0.005	<b>0.5</b>	<0.005	<b>0.8</b>	<0.005
SIP-ETC-201	12-JUL-12	TO15DIT	<0.005	<0.005	<b>0.011</b>	<0.005	<b>0.039</b>	<0.005	<0.005	<b>0.43</b>	<0.005	<b>0.48</b>	<0.005
<b>VTFD-HS<sup>b</sup></b>													
W-653 <sup>c</sup>	03-NOV-09	TO15DIT	<b>0.026</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.016</b>	<0.005	<0.005	<b>0.58</b>	<0.005
W-2011 <sup>c</sup>	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.081</b>	<0.005
W-2101 <sup>c</sup>	03-NOV-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.052</b>	<0.005
W-2102 <sup>c</sup>	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.11</b>	<0.005
<b>VTFE-ELM</b>													
W-1903	30-JUL-12	TO15DIT	<0.005	<0.005	<b>0.0079</b>	<0.005	<b>0.95</b>	<0.005	<b>0.3</b>	<b>0.8</b>	<0.005	<b>2</b>	<0.005
W-1909 <sup>c</sup>	06-OCT-11	TO15DIT	<0.005	<b>0.034</b>	<0.005	<0.005	<b>0.51</b>	<0.005	<b>0.054</b>	<b>0.88</b>	<0.005	<b>1.2</b>	<0.005
W-2305 <sup>c</sup>	06-OCT-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.2</b>	<0.005	<b>0.036</b>	<b>0.46</b>	<0.005	<b>0.55</b>	<0.005
W-543-001	30-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.007</b>	<0.005	<0.005	<b>0.65</b>	<0.005	<b>0.098</b>	<0.005
W-543-003	30-JUL-12	TO15DIT	<0.005	<b>0.017</b>	<0.005	<0.005	<b>0.11</b>	<0.005	<b>0.026</b>	<b>0.22</b>	<0.005	<b>0.52</b>	<0.005
W-543-1908	30-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<b>0.014</b>	<0.005	<0.005	<b>0.063</b>	<0.005	<b>0.28</b>	<0.005
<b>VTFE-HS</b>													
W-2105	23-JUL-12	TO15DIT	<0.005	<b>0.0074</b>	<0.005	<0.005	<b>0.02</b>	<b>0.0072</b>	<b>0.13</b>	<b>0.22</b>	<0.005	<b>2.7</b>	<0.005
W-ETS-2008A	23-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.02</b>	<0.005	<b>0.038</b>	<0.005
W-ETS-2008B	23-JUL-12	TO15DIT	<0.005	<b>0.0052</b>	<0.005	<0.005	<b>0.017</b>	<b>0.0055</b>	<b>0.016</b>	<b>0.42</b>	<0.005	<b>1</b>	<0.005
W-ETS-2009	23-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.11</b>	<0.005	<b>0.35</b>	<0.005
W-ETS-2010A	23-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.074</b>	<0.005	<b>0.16</b>	<0.005
W-ETS-2010B	23-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0054</b>	<b>0.1</b>	<0.005	<b>0.19</b>	<0.005
<b>VTF406-HS</b>													
W-217	12-JUL-12	TO15DIT	<b>0.12</b>	<b>0.035</b>	<b>0.0093</b>	<0.005	<b>0.79</b>	<b>0.014</b>	<b>0.12</b>	<b>0.75</b>	<0.005	<b>1.8</b>	<b>0.009</b>
W-514-2007A	12-JUL-12	TO15DIT	<b>0.032</b>	<0.005	<0.005	<0.005	<b>0.017</b>	<0.005	<b>0.047</b>	<b>0.025</b>	<0.005	<b>0.16</b>	<b>1</b>
W-514-2007B	12-JUL-12	TO15DIT	<b>0.055</b>	<b>0.017</b>	<b>0.0051</b>	<0.005	<b>0.37</b>	<0.005	<b>0.049</b>	<b>0.21</b>	<0.005	<b>0.81</b>	<b>0.035</b>
<b>VTF511</b>													
W-2204	17-JUL-12	TO15DIT	<b>0.11</b>	<b>0.032</b>	<0.01	<b>0.039</b>	<b>0.027</b>	<0.01	<b>0.01</b>	<b>0.54</b>	<0.01	<b>5.7</b>	<0.01
W-2205	17-JUL-12	TO15DIT	<b>0.039</b>	<b>0.0054</b>	<0.005	<0.005	<b>0.013</b>	<0.005	<0.005	<b>0.1</b>	<0.005	<b>1.3</b>	<0.005
W-2206	17-JUL-12	TO15DIT	<b>0.0058</b>	<b>0.0088</b>	<0.005	<b>0.0055</b>	<0.005	<0.005	<0.005	<b>0.14</b>	<0.005	<b>1</b>	<0.005
W-2207A	19-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0081</b>	<0.005	<b>0.5</b>	<0.005
W-2207B	17-JUL-12	TO15DIT	<0.005	<b>0.0072</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.016</b>	<0.005	<b>1.7</b>	<0.005

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CCl <sub>4</sub> <-	CHCl <sub>3</sub> -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
<b>VTF511 (cont.)</b>													
W-2208A	19-JUL-12	TO15DIT	<b>0.065</b>	<b>0.032</b>	<0.017	<0.017	<b>0.1</b>	<b>0.017</b>	<0.017	<b>0.057</b>	<0.017	<b>10</b>	<b>0.058</b>
W-2208B	17-JUL-12	TO15DIT	<b>0.15</b>	<b>0.11</b>	<b>0.083</b>	<b>0.024</b>	<b>0.88</b>	<b>0.23</b>	<b>0.1</b>	<b>0.37</b>	<0.02	<b>18</b>	<b>0.093</b>
<b>VTF518-PZ</b>													
W-1615	16-JUL-12	TO15DIT	<b>0.011</b>	<0.01	<0.01	<0.01	<b>0.44</b>	<0.01	<b>0.074</b>	<b>2.4</b>	<0.01	<b>7.1</b>	<0.01
W-518-1913	16-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.058</b>	<0.005	<b>0.14</b>	<0.005
W-518-1914	16-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>4.3</b>	<b>0.0062</b>	<b>0.53</b>	<0.005
W-518-1915	16-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.014</b>	<0.005	<b>0.01</b>	<0.005
SVB-518-201	16-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.025</b>	<0.005	<b>0.056</b>	<0.005
SVB-518-204	16-JUL-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.013</b>	<0.005	<0.005	<0.005
<b>VTF5475<sup>d</sup></b>													
W-ETS-507	25-SEP-12	TO15DIT	<0.005	<b>1.5</b>	<0.005	<b>0.17</b>	<b>0.024</b>	<0.005	<0.005	<b>0.22</b>	<0.005	<b>1.1</b>	<0.005
W-1605 <sup>c</sup>	06-SEP-07	TO15DI	<b>0.0069</b>	<b>0.17</b>	<0.005	<b>0.15</b>	<b>0.11</b>	<0.005	<b>0.036</b>	<b>0.1</b>	<0.005	<b>0.85</b>	<0.005
W-1608 <sup>c</sup>	06-SEP-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<b>0.0061</b>	<0.005
W-2211	26-SEP-12	TO15DIT	<b>0.0074</b>	<b>0.43</b>	<b>0.013</b>	<b>0.044</b>	<b>0.22</b>	<0.005	<b>0.056</b>	<b>0.12</b>	<0.005	<b>1</b>	<0.005
W-2212	26-SEP-12	TO15DIT	<b>0.0062</b>	<b>0.19</b>	<b>0.0065</b>	<b>0.033</b>	<b>0.16</b>	<0.005	<b>0.032</b>	<b>0.049</b>	<0.005	<b>0.39</b>	<0.005
W-2302	25-SEP-12	TO15DIT	<0.005	<b>0.021</b>	<0.005	<0.005	<b>0.021</b>	<0.005	<0.005	<b>0.024</b>	<0.005	<b>0.32</b>	<0.005
W-2303	25-SEP-12	TO15DIT	<0.005	<b>0.14</b>	<0.005	<b>0.019</b>	<b>0.036</b>	<0.005	<0.005	<b>0.051</b>	<0.005	<b>0.43</b>	<0.005
SVI-ETS-504	25-SEP-12	TO15DIT	<0.005	<b>0.28</b>	<b>0.0065</b>	<0.005	<b>0.055</b>	<0.005	<0.005	<b>0.11</b>	<0.005	<b>0.55</b>	<0.005

Notes on following page.

**Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.**

<sup>a</sup> VTFD-ETCS did not operate during the month of September due to a facility vacuum pump blower failure.

<sup>b</sup> VTFD-HS did not operate during reporting period due to dual extraction well ground water pump failure.

<sup>c</sup> Most recent VOC vapor sample results available.

<sup>d</sup> VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

CCl<sub>4</sub> = Carbon tetrachloride

CHCl<sub>3</sub> = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.



**Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.**

<b>Treatment Facility</b>	<b>Sample Station</b>	<b>Date Sampled</b>	<b>Chromium (total)<sup>a</sup> mg/L (ppm)</b>	<b>Hexavalent Chromium mg/L (ppm)</b>
<b>TFA</b>	TFA-I001	05-JUL-12	0.013	NA
	TFA-I001	13-SEP-12	0.014	NA
	TFA-E001	05-JUL-12	0.013	NA
	TFA-E001	13-SEP-12	0.013	0.012
<b>TFA-E</b>	W-254	10-JUL-12	0.01	NA
	STU06-E	10-JUL-12	<0.001	NA
<b>TFB</b>	TFB-I002	05-JUL-12	0.017	NA
	TFB-E002	05-JUL-12	0.02	NA
	TFB-E002	01-AUG-12	0.02	NA
	TFB-E002	04-SEP-12	0.019	NA
	TFB-R002	05-JUL-12	0.016	NA
<b>TFC</b>	TFC-I003	05-JUL-12	0.02	NA
	TFC-E003	05-JUL-12	0.02	NA
	TFC-E003	01-AUG-12	0.019	NA
	TFC-E003	04-SEP-12	0.021	NA
	TFC-R003	05-JUL-12	0.0081	NA
<b>TFC-E</b>	MTU1-I	02-JUL-12	0.036	NA
	MTU1-E	02-JUL-12	0.035	NA
	MTU1-E	02-AUG-12	0.038	NA
	MTU1-E	05-SEP-12	0.04	NA
<b>TFC-SE</b>	PTU1-I	09-JUL-12	0.034	NA
	PTU1-E	09-JUL-12	0.032	NA
	PTU1-E	02-AUG-12	0.03	NA
	PTU1-E	05-SEP-12	0.032	NA
<b>TFD</b>	TFD-I004	09-JUL-12	0.012	NA
	TFD-E004	09-JUL-12	0.012	NA
<b>TFD-E</b>	PTU8-I	02-JUL-12	0.0057	NA
	PTU8-E	02-JUL-12	0.006	NA
<b>TFD-S</b>	PTU2-I	12-JUL-12	0.014	NA
	PTU2-E	12-JUL-12	0.013	NA
<b>TFD-SE</b>	PTU11-I	02-JUL-12	0.0098	NA
	PTU11-E	02-JUL-12	0.01	NA
<b>TFD-SS</b>	PTU12-I	12-JUL-12	0.013	NA
	PTU12-E	12-JUL-12	0.012	NA
<b>TFD-W</b>	PTU6-I	11-JUL-12	0.012	NA
	PTU6-E	11-JUL-12	0.013	NA
<b>TFE-E</b>	PTU3-I	09-JUL-12	0.01	NA
	PTU3-E	09-JUL-12	0.0096	NA
<b>TFE-HS</b>	GTU07-I	17-JUL-12	0.0045	NA
	GTU07-E	17-JUL-12	<0.001	NA
<b>TFE-NW</b>	PTU9-I	11-JUL-12	0.013	NA
	PTU9-E	11-JUL-12	0.013	NA

**Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.**

<b>Treatment Facility</b>	<b>Sample Station</b>	<b>Date Sampled</b>	<b>Chromium (total)<sup>a</sup> mg/L (ppm)</b>	<b>Hexavalent Chromium mg/L (ppm)</b>
<b>TFE-SE</b>	W-359	09-JUL-12	0.0086	NA
	MTU04-E	09-JUL-12	0.0088	NA
<b>TFE-SW</b>	MTU03-I	12-JUL-12	0.0043	NA
	MTU03-E	12-JUL-12	0.0053	NA
<b>TFE-W</b>	MTU05-I	12-JUL-12	0.011	NA
	MTU05-E	12-JUL-12	0.011	NA
<b>TFG-1</b>	W-1111	10-JUL-12	0.0082	NA
	GTU01-E	10-JUL-12	<0.001	NA
	TFG-ASW	10-JUL-12	0.013	NA
<b>TFG-N</b>	MTU02-I	10-JUL-12	0.0087	NA
	MTU02-E	10-JUL-12	0.0084	NA
<b>TF406</b>	PTU5-I	11-JUL-12	0.015	NA
	PTU5-E	11-JUL-12	0.014	NA
<b>TF406-NW</b>	W-1801	11-JUL-12	0.0031	NA
	GTU03-E	11-JUL-12	<0.001	NA
<b>TF5475-2</b>	GTU09-I	02-JUL-12	0.0096	NA
	GTU09-E	02-JUL-12	0.011	NA

<sup>a</sup>A discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

**Table A-5. Bioassay, turbidity, and chloride analyses of influent and effluent samples by treatment facility.**

<b>Treatment Facility</b>	<b>Sample Station</b>	<b>Date Sampled</b>	<b>Aquatic Bioassay<sup>a</sup> Percent Survival</b>	<b>Turbidity Nephelometric Turbidity Units (NTU)</b>	<b>Chloride (mg/L)</b>
<b>TFA</b>	TFA-E001	05-JUL-12	100 (100)	NA	NA
	TFA-E001	13-SEP-12	NA	0.51	NA
	TFA-E001	13-SEP-12	100 (100)	NA	NA
	TFA-E001	13-SEP-12	NA	NA	86
<b>TFA-E</b>	STU06-E	10-JUL-12	100 (100)	NA	NA
<b>TFB</b>	TFB-E002	05-JUL-12	100 (100)	NA	NA
<b>TFC</b>	TFC-E003	05-JUL-12	100 (100)	NA	NA
<b>TFC-E</b>	MTU1-E	02-JUL-12	100 (100)	NA	NA
<b>TFC-SE</b>	PTU1-E	09-JUL-12	100 (100)	NA	NA
<b>TFD</b>	TFD-E004	09-JUL-12	100 (100)	NA	NA
<b>TFD-E</b>	PTU8-E	02-JUL-12	100 (100)	NA	NA
<b>TFD-S</b>	PTU2-E	12-JUL-12	100 (100)	NA	NA
<b>TFD-SE</b>	PTU11-E	02-JUL-12	100 (100)	NA	NA
<b>TFD-SS</b>	PTU12-E	12-JUL-12	100 (100)	NA	NA
<b>TFD-W</b>	PTU6-E	11-JUL-12	100 (100)	NA	NA
<b>TFE-E</b>	PTU3-E	09-JUL-12	100 (100)	NA	NA
<b>TFE-HS</b>	GTU07-E	17-JUL-12	100 (100)	NA	NA
<b>TFE-NW</b>	PTU9-E	11-JUL-12	100 (100)	NA	NA
<b>TFE-SE</b>	MTU04-E	09-JUL-12	100 (100)	NA	NA
<b>TFE-SW</b>	MTU03-E	12-JUL-12	100 (100)	NA	NA
<b>TFE-W</b>	MTU05-E	12-JUL-12	100 (100)	NA	NA
<b>TFG-1</b>	GTU01-E	10-JUL-12	100 (100)	NA	NA
<b>TFG-N</b>	MTU02-E	10-JUL-12	100 (100)	NA	NA
<b>TF406</b>	PTU5-E	11-JUL-12	100 (100)	NA	NA
<b>TF406-NW</b>	GTU03-E	11-JUL-12	100 (100)	NA	NA
<b>TF5475-2</b>	GTU09-E	02-JUL-12	100 (100)	NA	NA

<sup>a</sup>Test species was Fathead minnow and the test duration was 96 hours.

Percent survival in the control group samples shown in parentheses.

Note: NA = not applicable

## Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

## Explanation of Abbreviations

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

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**Attachment B**

**Self-Monitoring Reports**

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# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-05-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	1,139,900	24.8
W-262	100	0.0
W-408	474,300	10.3
W-415	1,101,700	21.4
W-457	1,061,800	23.2
W-518	206,400	4.5
W-522	781,900	17.0
W-605	401,500	8.7
W-614	492,700	10.6
W-712	287,800	6.3
W-714	377,200	8.2
W-903	698,800	14.9
W-904	1,614,100	36.0
W-1001	180,600	3.9
W-1004	525,700	11.6
W-1009	1,105,300	24.0
Total:	<u>10,449,800</u>	<u>225.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>5,555,300</u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

4,894,500

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_

*Steve Kawaguchi*

Date: 07-31-2012



# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                  16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 321

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2012  
 Influent pH: 7.0  
 Effluent pH: 7.5  
 Effluent Temperature (°C): 20

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	473,800	24.7
W-262	100	0.0
W-408	200,400	10.3
W-415	40,100	25.0
W-457	441,300	22.6
W-518	26,200	4.5
W-522	342,900	17.0
W-605	171,400	8.9
W-614	203,800	10.8
W-712	126,600	6.3
W-714	152,500	8.3
W-903	306,800	14.3
W-904	673,600	33.5
W-1001	78,500	3.9
W-1004	218,900	11.6
W-1009	454,500	23.9
Total:	<u>3,911,400</u>	<u>225.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,040,100</u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

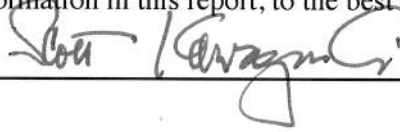
1,871,300

6. Comments:

System down on 8-1-12 due to water in Susan Lane vault. Restarted on 8-13-12.  
Secured on 8-13-12. Restarted on 8-16-12. W-518 down on 8-18-12. Restarted on  
8-27-12. Facility secured on 8-28-12 for W-404 pipeline tie-in. Restarted on  
8-31-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_



Date: 09-06-2012

# Self-Monitoring Report

## LLNL Treatment Facility A (TFA)

### AREA TFA

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **570**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **09-01-2012**  
 Influent pH: **7.0**  
 Effluent pH: **7.5**  
 Effluent Temperature (°C): **20.2**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	806,100	23.5
W-262	0	0.0
W-408	364,600	9.2
W-415	0	0.0
W-457	788,500	20.9
W-518	156,700	4.6
W-522	543,900	13.9
W-605	302,700	9.1
W-614	372,700	11.0
W-712	230,600	6.8
W-714	272,500	8.2
W-903	556,000	14.7
W-904	1,203,900	32.1
W-1001	82,200	4.2
W-1004	222,800	11.6
W-1009	831,400	24.2
W-404	6,400	32.1
Total:	<u><b>6,741,000</b></u>	<u><b>226.1</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>3,513,400</b></u>

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility A (TFA)**  
**AREA TFA**

Arroyo Seco

TFG-ASW

3,227,600

6. Comments:

System secured on 9-6-12 for electronic upgrades. Restarted on 9-7-12. System down on 9-11-12 due to W-404 communication fault. Restarted on 9-12-12. 9-13-12: First day of operation W-404. System down on 9-20-12 due to W-404 leak fault. Restarted on 9-21-12. 9-25-12: Second day of operation W-404. Down 9-26-12 for strategy upgrades. Restarted on 9-28-12, third day of operation W-404.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_

*Steve Kawaguchi*

Date: 10-04-2012

Operator Signature: [Signature] Date: **07-31-2012**

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August     01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-02-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 25.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-254</b>	<b>17,557</b>	<b>0.4</b>
Total:	<u><b>17,557</b></u>	<u><b>0.4</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Seco</b></u>	<u><b>TFG-ASW</b></u>	<u><b>17,557</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 06 (STU06)**  
**AREA TFA-E**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 661

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2012  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 18.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-254</b>	<b>17,209</b>	<b>0.4</b>
Total:	<u><b>17,209</b></u>	<u><b>0.4</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Seco</b></u>	<u><b>TFG-ASW</b></u>	<u><b>17,209</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Slott Kawaguchi Date: 10-03-2012

# Self-Monitoring Report LLNL LWRP (LWRP) AREA TFA-W

1. Reporting Period: Business Month July Year **2012**

2. Dates (in **bold** and underline ) treated ground water was discharged

June	30															
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

### 3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature ( $^{\circ}\text{C}$ ):

#### 4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-404</b>	<b>0</b>	<b>0.0</b>
<b>Total:</b>	<b>0</b>	<b>0.0</b>

### 5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<b><u>LWRP @ 5513Z Charlotte Way</u></b>	<b><u>TFA-W-E</u></b>	<b><u>0</u></b>

6. Comments:

Operations were suspended on 1/14/08. W-404 well pump removed on 3/21/12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: [Signature] Date: **09-14-2012**



**Self-Monitoring Report  
LLNL LWRP (LWRP)  
AREA TFA-W**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-404</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>LWRP @ 5513Z Charlotte Way</b></u>	<u><b>TFA-W-E</b></u>	<u><b>0</b></u>

6. Comments:

Operations were suspended on 1/14/08. W-404 well pump removed on 3/21/12.  
A new pump was installed on 8/6/12. Well W-404 will be connected to the  
Treatment Facility A (TFA) Arroyo Seco pipeline in September.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-14-2012**

**Self-Monitoring Report  
LLNL LWRP (LWRP)  
AREA TFA-W**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-404</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

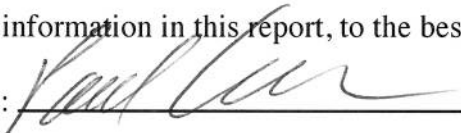
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>LWRP @ 5513Z Charlotte Way</b></u>	<u><b>TFA-W-E</b></u>	<u><b>0</b></u>

6. Comments:

This is the final TFA West SMR. Well W-404 was connected to the TFA Arroyo Seco pipeline in September 2012. Ground water extraction flow rates and volumes for well W-404 will now be reported on the Treatment Facility A (TFA) SMR.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-14-2012**

# Self-Monitoring Report

## LLNL Treatment Facility B (TFB)

### AREA TFB

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	09	10	11	12	13	14	15		
	16	17	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	

Total monthly time facility operated (hours): 522

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-05-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	274,400	8.4
W-610	175,500	5.8
W-620	187,900	5.7
W-621	0	0.0
W-655	0	0.0
W-704	542,100	17.3
W-1423	173,100	5.6
W-2501	535,500	16.6
W-2502	152,400	4.8
Total:	<u>2,040,900</u>	<u>64.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,040,900</u>

6. Comments:

System down on 7-8-12 due to I/O fault. However, W-357, W-1423, W-620, and W-2501 continued to run, allowing approximately 60,000 gallons of untreated water to be released to the drainage ditch to the west of the facility with a portion infiltrating into the ground. The facility was restarted on 7-18-12. W-610 went down on 7-29-12.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility B (TFB)**  
**AREA TFB**

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 07-31-2012

**Land Observation Report date:**  
**TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month July Year 2012

2. Date compliance sampling performed 07-05-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>17.76</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>7/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

# Self-Monitoring Report

## LLNL Treatment Facility B (TFB)

### AREA TFB

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **791**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-01-2012**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **21.3**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-357</b>	<b>85,900</b>	<b>8.3</b>
<b>W-610</b>	<b>0</b>	<b>0.0</b>
<b>W-620</b>	<b>261,000</b>	<b>5.6</b>
<b>W-621</b>	<b>200</b>	<b>0.0</b>
<b>W-655</b>	<b>100</b>	<b>0.0</b>
<b>W-704</b>	<b>181,800</b>	<b>17.3</b>
<b>W-1423</b>	<b>218,000</b>	<b>5.0</b>
<b>W-2501</b>	<b>735,800</b>	<b>16.2</b>
<b>W-2502</b>	<b>210,500</b>	<b>4.9</b>
<b>Total:</b>	<u><b>1,693,300</b></u>	<u><b>57.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>1,693,300</b></u>

6. Comments:

W-357 and W-704 down on 8-7-12 due to low flow fault.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**

**Land Observation Report date:  
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month August Year 2012

2. Date compliance sampling performed 08-01-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.1</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-28-2012

**Self-Monitoring Report**  
**LLNL Treatment Facility B (TFB)**  
**AREA TFB**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 681

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2012  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 18.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	22,200	8.0
W-610	0	0.0
W-620	235,900	5.9
W-621	0	0.0
W-655	0	0.0
W-704	66,500	17.0
W-1423	190,800	4.7
W-2501	671,600	16.6
W-2502	191,400	4.7
Total:	<u>1,378,400</u>	<u>56.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>1,378,400</u>

6. Comments:

Restarted W-704 on 9-25-12. Restarted W-357 on 9-26-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 10-04-2012



**Land Observation Report date:**  
**TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month September Year 2012

2. Date compliance sampling performed 09-04-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.13</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>4/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 10-04-2012

Operator Signature: [Signature] Date: 07-31-2012

**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month July Year 2012

2. Date compliance sampling performed 07-05-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>17.76</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>7/SW</u>

4. Receiving Data:

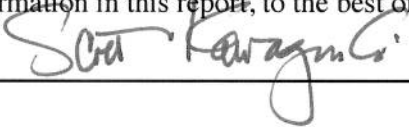
Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

# Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

July	<u><b>31</b></u>																				
August	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	<u><b>04</b></u>	<u><b>05</b></u>	<u><b>06</b></u>	<u><b>07</b></u>	<u><b>08</b></u>	<u><b>09</b></u>	<u><b>10</b></u>	11	12	<u><b>13</b></u>	<u><b>14</b></u>	<u><b>15</b></u>						
	<u><b>16</b></u>	<u><b>17</b></u>	<u><b>18</b></u>	<u><b>19</b></u>	<u><b>20</b></u>	<u><b>21</b></u>	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>	<u><b>31</b></u>					

Total monthly time facility operated (hours): **683**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u><b>08-01-2012</b></u>
Influent pH:	<u><b>7.0</b></u>
Effluent pH:	<u><b>7.5</b></u>
Effluent Temperature (°C):	<u><b>19.5</b></u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-701</b>	<b>562,032</b>	<b>13.9</b>
<b>W-1015</b>	<b>170,048</b>	<b>4.5</b>
<b>W-1102</b>	<b>163,850</b>	<b>4.1</b>
<b>W-1103</b>	<b>116,052</b>	<b>2.9</b>
<b>W-1104</b>	<b>1,072,416</b>	<b>26.5</b>
<b>W-1116</b>	<b>69,984</b>	<b>1.8</b>
 Total:	<u><b>2,154,382</b></u>	<u><b>53.7</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>2,154,382</b></u>

6. Comments:

Facility restarted on 7-31-12. System secured on 8-10-12 for scheduled power outage. Restarted on 8-13-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**

**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month August Year 2012

2. Date compliance sampling performed 08-01-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.1</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 09-28-2012

**Self-Monitoring Report**  
**LLNL Treatment Facility C (TFC)**  
**AREA TFC**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 680

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2012  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 19.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	562,136	14.0
W-1015	158,116	4.0
W-1102	165,014	4.2
W-1103	104,462	2.9
W-1104	1,086,640	26.9
W-1116	66,925	1.7
Total:	<u>2,143,293</u>	<u>53.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,143,293</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kargali Date: 10-03-2012

**Land Observation Report date:  
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month September Year 2012

2. Date compliance sampling performed 09-04-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.13</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>4/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 10-04-2012

# Self-Monitoring Report

## LLNL Mini Treatment Unit 1 (MTU1)

### AREA TFC-E

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u><b>29</b></u>	<u><b>30</b></u>																								
July	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	<u><b>04</b></u>	<u><b>05</b></u>	<u><b>06</b></u>	<u><b>07</b></u>	<u><b>08</b></u>	<u><b>09</b></u>	<u><b>10</b></u>	<u><b>11</b></u>	<u><b>12</b></u>	<u><b>13</b></u>	<u><b>14</b></u>	<u><b>15</b></u>											
	<u><b>16</b></u>	<u><b>17</b></u>	<u><b>18</b></u>	<u><b>19</b></u>	<u><b>20</b></u>	<u><b>21</b></u>	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>	31										

Total monthly time facility operated (hours): 742

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u><b>07-02-2012</b></u>
Influent pH:	<u><b>7.0</b></u>
Effluent pH:	<u><b>7.5</b></u>
Effluent Temperature (°C):	<u><b>21.8</b></u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-368</b>	<b>117,696</b>	<b>2.6</b>
<b>W-413</b>	<b>696,505</b>	<b>15.2</b>
Total:	<u><b>814,201</b></u>	<u><b>17.8</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>814,201</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-06-2012**



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 1 (MTU1)**  
**AREA TFC-E**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 763

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-02-2012  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-368</b>	<b>119,602</b>	<b>2.6</b>
<b>W-413</b>	<b>695,702</b>	<b>14.8</b>
Total:	<u><b>815,304</b></u>	<u><b>17.4</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>815,304</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Ant Vinday* Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 1 (MTU1)**  
**AREA TFC-E**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 646

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2012  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 22

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-368</b>	<b>100,830</b>	<b>2.6</b>
<b>W-413</b>	<b>575,788</b>	<b>14.7</b>
Total:	<u><b>676,618</b></u>	<u><b>17.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>676,618</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>30</u>																		
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-09-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	185,735	4.0
W-2201	563,524	12.3
Total:	<u>749,259</u>	<u>16.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>749,259</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 07-31-2012

# Self-Monitoring Report

## LLNL Portable Treatment Unit 1 (PTU1)

### AREA TFC-SE

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                  16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 753

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-02-2012  
 Influent pH: 7.0  
 Effluent pH: 7.5  
 Effluent Temperature (°C): 21.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	177,957	4.1
W-2201	546,683	12.3
Total:	<u>724,640</u>	<u>16.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>724,640</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 1 (PTU1)**  
**AREA TFC-SE**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **681**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **09-05-2012**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **20.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1213</b>	<b>160,384</b>	<b>4.0</b>
<b>W-2201</b>	<b>495,025</b>	<b>12.3</b>
Total:	<u><b>655,409</b></u>	<u><b>16.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>655,409</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-03-2012**

# Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u><b>30</b></u>																					
July	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	<u><b>04</b></u>	<u><b>05</b></u>	<u><b>06</b></u>	<u><b>07</b></u>	<u><b>08</b></u>	<u><b>09</b></u>	<u><b>10</b></u>	<u><b>11</b></u>	<u><b>12</b></u>	<u><b>13</b></u>	<u><b>14</b></u>	<u><b>15</b></u>							
	<u><b>16</b></u>	<u><b>17</b></u>	<u><b>18</b></u>	<u><b>19</b></u>	<u><b>20</b></u>	<u><b>21</b></u>	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>	<u><b>31</b></u>						

Total monthly time facility operated (hours): 773

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u><b>07-09-2012</b></u>
Influent pH:	<u><b>7.0</b></u>
Effluent pH:	<u><b>7.5</b></u>
Effluent Temperature (°C):	<u><b>21.7</b></u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	58,200	1.3
W-653	5,200	3.0
W-906	202,100	4.3
W-907-2	488,400	10.6
W-2011	14,800	2.9
W-2101	9,600	3.0
W-2102	14,500	3.0
W-1206	511,400	11.1
W-1208	1,091,400	23.5
 Total:	<u><b>2,395,600</b></u>	<u><b>62.7</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>2,395,600</b></u>
<u><b>TFD irrigation supply</b></u>	<u><b>TFD-IRR</b></u>	<u><b>0</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility D (TFD)**  
**AREA TFD**

Operator Signature:  Date: 07-31-2012

# Self-Monitoring Report

## LLNL Treatment Facility D (TFD)

### AREA TFD

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 757

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-02-2012  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	57,100	1.3
W-653	4,900	3.0
W-906	200,400	4.4
W-907-2	462,000	10.5
W-2011	14,200	3.0
W-2101	8,900	3.0
W-2102	14,400	3.0
W-1206	478,700	11.0
W-1208	1,056,600	23.6
Total:	<u>2,297,200</u>	<u>62.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,297,200</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.



**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility D (TFD)**  
**AREA TFD**

Operator Signature: Steve Kawaguchi Date: 09-05-2012

# Self-Monitoring Report

## LLNL Treatment Facility D (TFD)

### AREA TFD

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 672

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2012  
 Influent pH: 7.0  
 Effluent pH: 7.5  
 Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	49,700	1.2
W-653	4,300	3.0
W-906	180,600	4.5
W-907-2	403,100	10.1
W-2011	12,000	3.0
W-2101	7,500	3.0
W-2102	12,500	3.0
W-1206	441,500	10.7
W-1208	892,000	23.6
Total:	<u>2,003,200</u>	<u>62.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,003,200</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL Treatment Facility D (TFD)**  
**AREA TFD**

Operator Signature:  Date: 09-28-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 8 (PTU8)**  
**AREA TFD-E**

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 791

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-02-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.1</u>

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	2,041	0.0
W-1301	60,568	1.7
W-1303	76,347	3.0
W-1306	15,245	0.6
W-1307	479,361	9.8
W-1550	30,054	1.0
W-2203	15,195	0.0
Total:	<u>678,811</u>	<u>16.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>678,811</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-06-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 8 (PTU8)**  
**AREA TFD-E**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 744

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-02-2012  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	1,576	0.0
W-1301	60,864	1.3
W-1303	86,109	0.0
W-1306	21,458	4.4
W-1307	440,824	9.8
W-1550	40,719	1.0
W-2203	16,290	0.0
Total:	<u>667,840</u>	<u>16.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>667,840</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Ant Vandy* Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 8 (PTU8)**  
**AREA TFD-E**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27**

Total monthly time facility operated (hours): 627

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2012  
Influent pH: 7.0  
Effluent pH: 7.5  
Effluent Temperature (°C): 22.5

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	1,188	0.0
W-1301	42,854	1.3
W-1303	76,756	2.0
W-1306	17,023	0.4
W-1307	243,322	8.0
W-1550	32,108	0.8
W-2203	13,184	0.0
Total:	<u>426,435</u>	<u>12.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>426,435</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Total monthly time facility operated (hours): 163

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	50,284	5.2
Total:	<u>50,284</u>	<u>5.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>50,284</u>

6. Comments:

The facility shut down at 1:51 AM on 7-6-12 due to low flow interlock activation.  
The pump for W-1254 needs to be checked.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy D. Fadda Date: 10-30-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	<b><u>28</u></b>	<b><u>29</u></b>	<b><u>30</u></b>	<b><u>31</u></b>

Total monthly time facility operated (hours): 75

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<b><u>08-29-2012</u></b>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	44,154	9.9
Total:	<u>44,154</u>	<u>9.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>44,154</u>

6. Comments:

The facility was restarted at 8:12 AM on 8/28/12 after a new pump was installed in W-1254.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty D. Kuhl J Date: 10-30-2012



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 10 (PTU10)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 684

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-20-2012  
Influent pH: 7.5  
Effluent pH: 7.6  
Effluent Temperature (°C): 20.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	352,214	7.5
Total:	<u>352,214</u>	<u>7.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>352,214</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 10-17-2012

# Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month **July** Year **2012**

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>30</u>															
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	31

Total monthly time facility operated (hours): **751**

### 3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature ( $^{\circ}\text{C}$ ):

#### 4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1650</b>	<b>434</b>	<b>2.0</b>
<b>W-1653</b>	<b>146</b>	<b>2.2</b>
<b>W-1655</b>	<b>597</b>	<b>4.0</b>
<b>W-1657</b>	<b>466</b>	<b>3.8</b>
<b>Total:</b>	<b>1,643</b>	<b>11.9</b>

### 5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<b><u>ISB01 injection well</u></b>	<b><u>W-1552</u></b>	<b><u>1,643</u></b>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The recorded flowrate readings were taken when the facility was running in the lactate injection mode. The facility was shut down at 15:57 on 7-30-12 and restarted at 9:50 on 7-31-12 (down for approximately 18 hrs.) to improve on conditions for sampling the next day.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL ISB01 (ISB01)**  
**AREA TFD-HPD**

Operator Signature: Billy V. Kuntz Date: 10-30-2012

**Self-Monitoring Report  
LLNL ISB01 (ISB01)  
AREA TFD-HPD**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 523

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1650</b>	<b>513</b>	<b>0.8</b>
<b>W-1653</b>	<b>382</b>	<b>0.3</b>
<b>W-1655</b>	<b>213</b>	<b>1.4</b>
<b>W-1657</b>	<b>144</b>	<b>1.8</b>
Total:	<u><b>1,252</b></u>	<u><b>4.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>ISB01 injection well</b></u>	<u><b>W-1552</b></u>	<u><b>1,252</b></u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. On 8-10-12 at 1351, the extraction of facility water occurred at W-1650 and W-1653 only. On 8-15-12 approximately 160 gallons of water were diverted to the pre-mixing tank and was not immediately injected into W-1552. Approximately 25 gallons of facility water were diverted to the bypass tank during the functional test and was not immediately injected into W-1552. The facility shut down several times, and the facility was down for several days when functional tests were being performed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**  
**LLNL ISB01 (ISB01)**  
**AREA TFD-HPD**

Operator Signature: Billy Kidd Date: 08-09-2012

**Self-Monitoring Report**  
**LLNL ISB01 (ISB01)**  
**AREA TFD-HPD**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 567

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1650</b>	<b>453</b>	<b>3.2</b>
<b>W-1653</b>	<b>400</b>	<b>1.1</b>
<b>W-1655</b>	<b>0</b>	<b>0.0</b>
<b>W-1657</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>853</b></u>	<u><b>4.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>ISB01 injection well</b></u>	<u><b>W-1552</b></u>	<u><b>853</b></u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The facility was down for several days for new strategy download and functional testing. Extraction from W-1650 and W-1653 continued soon after the process was completed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kula Date: 10-09-2012

# Self-Monitoring Report

## LLNL Portable Treatment Unit 2 (PTU2)

### AREA TFD-S

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u><b>30</b></u>																								
July	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	<u><b>04</b></u>	<u><b>05</b></u>	<u><b>06</b></u>	<u><b>07</b></u>	<u><b>08</b></u>	<u><b>09</b></u>	<u><b>10</b></u>	<u><b>11</b></u>	<u><b>12</b></u>	<u><b>13</b></u>	<u><b>14</b></u>	<u><b>15</b></u>										
	<u><b>16</b></u>	<u><b>17</b></u>	<u><b>18</b></u>	<u><b>19</b></u>	<u><b>20</b></u>	<u><b>21</b></u>	<u><b>22</b></u>	<u><b>23</b></u>	<u><b>24</b></u>	<u><b>25</b></u>	<u><b>26</b></u>	<u><b>27</b></u>	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>	<u><b>31</b></u>									

Total monthly time facility operated (hours): 775

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u><b>07-12-2012</b></u>
Influent pH:	<u><b>7.0</b></u>
Effluent pH:	<u><b>7.0</b></u>
Effluent Temperature (°C):	<u><b>22.1</b></u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1503</b>	<b>525,160</b>	<b>11.3</b>
<b>W-1504</b>	<b>350,778</b>	<b>7.6</b>
<b>W-1510</b>	<b>226,714</b>	<b>5.0</b>
Total:	<u><b>1,102,652</b></u>	<u><b>23.8</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>1,102,652</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **750**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-14-2012**  
Influent pH: **7.0**  
Effluent pH: **7.0**  
Effluent Temperature (°C): **22**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1503</b>	<b>503,802</b>	<b>11.6</b>
<b>W-1504</b>	<b>337,102</b>	<b>7.5</b>
<b>W-1510</b>	<b>218,406</b>	<b>4.9</b>
Total:	<u><b>1,059,310</b></u>	<u><b>24.1</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>1,059,310</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 2 (PTU2)**  
**AREA TFD-S**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): 677

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-18-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1503</b>	<b>454,040</b>	<b>11.2</b>
<b>W-1504</b>	<b>302,022</b>	<b>7.4</b>
<b>W-1510</b>	<b>196,616</b>	<b>4.8</b>
Total:	<u><b>952,678</b></u>	<u><b>23.4</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>952,678</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2012

Operator Signature: ant Vnary Date: **08-06-2012**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 11 (PTU11)**  
**AREA TFD-SE**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August     **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
              **16** **17** **18** **19** **20** **21**

Total monthly time facility operated (hours): **507**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-02-2012**  
Influent pH: **7.0**  
Effluent pH: **7.5**  
Effluent Temperature (°C): **21.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-314</b>	<b>305,901</b>	<b>10.5</b>
<b>W-2005</b>	<b>0</b>	<b>0.0</b>
<b>W-1308</b>	<b>89,022</b>	<b>2.9</b>
<b>W-1403</b>	<b>43,561</b>	<b>1.4</b>
<b>W-1904</b>	<b>0</b>	<b>0.0</b>
<b>SIP-ETC-201</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>438,484</b></u>	<u><b>14.8</b></u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>438,484</b></u>

6. Comments:

Facility was secured on 8/21 for upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**

# Self-Monitoring Report

## LLNL Portable Treatment Unit 11 (PTU11)

### AREA TFD-SE

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August	22	23	24	25	26	27	28	29	30	31						
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28			

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-314</b>	<b>0</b>	<b>0.0</b>
<b>W-2005</b>	<b>0</b>	<b>0.0</b>
<b>W-1308</b>	<b>0</b>	<b>0.0</b>
<b>W-1403</b>	<b>0</b>	<b>0.0</b>
<b>W-1904</b>	<b>0</b>	<b>0.0</b>
<b>SIP-ETC-201</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>0</b></u>

6. Comments:

Facility down for upgrades and did not operate in September.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Ann Vandy* Date: **10-01-2012**

Operator Signature: [Signature] Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 12 (PTU12)**  
**AREA TFD-SS**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 741

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-14-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 20.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	287,931	6.5
W-1601	42,446	0.9
W-1602	173,239	3.9
W-1603	569,268	13.2
Total:	<u>1,072,884</u>	<u>24.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,072,884</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 12 (PTU12)**  
**AREA TFD-SS**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **676**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **09-18-2012**  
Influent pH: **7.0**  
Effluent pH: **7.0**  
Effluent Temperature (°C): **20**

4. Wellfield Data:

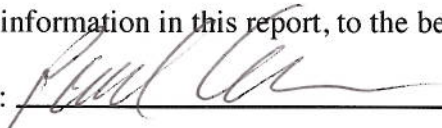
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1523</b>	<b>262,588</b>	<b>6.5</b>
<b>W-1601</b>	<b>36,645</b>	<b>0.9</b>
<b>W-1602</b>	<b>157,047</b>	<b>3.9</b>
<b>W-1603</b>	<b>522,920</b>	<b>12.9</b>
Total:	<u><b>979,200</b></u>	<u><b>24.2</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>979,200</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-03-2012**



Operator Signature: Betty Kiser Date: 08-13-2012



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 571

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-08-2012  
Influent pH: 7.5  
Effluent pH: 7.4  
Effluent Temperature (°C): 24.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	335,762	10.0
W-1216	338,255	10.0
W-1902	615,766	18.2
Total:	<u>1,289,783</u>	<u>38.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,289,783</u>

6. Comments:

The facility was down for an interlock check at 8:50 AM on 8/3/12 and was restarted at 10:22 AM on 8/3/12. The facility went down at 4:25 AM on 8/4/12 due to W-1216 flow meter failure and was restarted at 11:47 AM on 8/6/12. The facility went down at 10:20 AM on 8/11/12 due to W-1216 flow meter failure and was restarted at 3:48 PM on 8-15-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy O. Fink Date: 10-30-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 6 (PTU6)**  
**AREA TFD-W**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August 31  
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 700

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2012  
Influent pH: 7.5  
Effluent pH: 7.6  
Effluent Temperature (°C): 28.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	419,373	10.0
W-1216	419,101	10.1
W-1902	760,838	18.1
Total:	<u>1,599,312</u>	<u>38.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,599,312</u>

6. Comments:  
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 10-08-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June	<u>29</u>	<u>30</u>																								
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>										

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	202	0.0	0	0	0
W-ETC-2003	523,731	11.3	-.83	66	773
W-ETC-2004A	148,186	3.3	-4	66	773
W-ETC-2004B	716,984	15.7	-3.52	66	773
SIP-ETC-201	140	0.0	0	0	0
Total:	<u>1,389,243</u>	<u>30.3</u>			

4. Comments:

Found facility shutdown 7/19 due to failure of the mechanical outlet regulator. Maintenance performed 7/20/12 and facility was restarted at 09:00 hrs. Facility was shutdown at 13:15 hrs to make adjustment to regulator, and restarted at 14:00 hrs. End Month Cumulative volumes entered for reporting month were calculated from the individual flow measurements, and not derived from the totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-07-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                  16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	331,947	0.0	0	0	498
W-ETC-2004A	91,771	0.0	0	0	498
W-ETC-2004B	458,467	0.0	0	0	498
SIP-ETC-201	0	0.0	0	0	0
Total:	<u>882,185</u>	<u>0.0</u>			

4. Comments:

Discovered facility shutdown 8/21/12. EE team evaluation revealed unit has experienced possible motor failure, investigation is ongoing. End Month Cumulative volumes entered for reporting month were calculated from the individual flow measurements, and not derived from the totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-10-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 11 (VES11)

### AREA VTFD-ETCS

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
 16 17 18 19 20 21 22 23 24 25 26 27 28

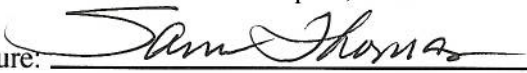
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1904</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-ETC-2003</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-ETC-2004A</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-ETC-2004B</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SIP-ETC-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>			

4. Comments:

Discovered facility shutdown 8/21/12. EE team evaluation revealed unit has experienced possible motor failure, investigation is ongoing.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-01-2012**



# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June	30																					
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15							
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						

3. Wellfield Data:

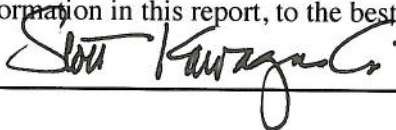
<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: \_\_\_\_\_



Date: 07-31-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-653</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2011</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2101</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2102</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-06-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 13 (VES13)

### AREA VTFD-HS

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
 16 17 18 19 20 21 22 23 24 25 26

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 09-27-2012



Operator Signature: Sam Holmes Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 754

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 20.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	376,727	8.4
W-1109	54,382	1.2
W-1903	21,407	0.6
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>452,516</u>	<u>10.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>452,516</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 3 (PTU3)**  
**AREA TFE-E**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **683**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **09-01-2012**  
Influent pH: **7.0**  
Effluent pH: **7.0**  
Effluent Temperature (°C): **20.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-566</b>	<b>341,250</b>	<b>8.4</b>
<b>W-1109</b>	<b>45,603</b>	<b>1.1</b>
<b>W-1903</b>	<b>16,488</b>	<b>0.5</b>
<b>W-1909</b>	<b>0</b>	<b>0.0</b>
<b>W-2305</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>403,341</b></u>	<u><b>10.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>403,341</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-04-2012**

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 793

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-17-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2105</b>	<b>119</b>	<b>0.8</b>
Total:	<u><b>119</b></u>	<u><b>0.8</b></u>

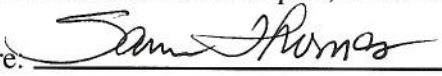
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>119</b></u>

6. Comments:

W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-07-2012

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): 742

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-08-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 16.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2105</b>	<b>258</b>	<b>0.3</b>
Total:	<u><b>258</b></u>	<u><b>0.3</b></u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>258</b></u>

6. Comments:

TFE-HS secured 06:50 to 13:30 hrs. 8/6/12. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012



**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 07 (GTU07)**  
**AREA TFE-HS**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 673

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 26.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-2105</b>	<b>192</b>	<b>0.6</b>
Total:	<u><b>192</b></u>	<u><b>0.6</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>192</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-04-2012

Operator Signature: [Signature] Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 9 (PTU9)**  
**AREA TFE-NW**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 754

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-14-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 22.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	266,414	6.0
W-1409	85,619	1.8
Total:	<u>352,033</u>	<u>7.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>352,033</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012



**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 9 (PTU9)**  
**AREA TFE-NW**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 680

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-18-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	247,257	6.7
W-1409	71,685	1.7
Total:	<u>318,942</u>	<u>8.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>318,942</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2012

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 809

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-09-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>24</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-359</b>	<b>390,597</b>	<b>8.3</b>
Total:	<u><b>390,597</b></u>	<u><b>8.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>390,597</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-07-2012

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 740

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-359</b>	<b>366,533</b>	<b>8.2</b>
Total:	<u><b>366,533</b></u>	<u><b>8.2</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>366,533</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 04 (MTU04)**  
**AREA TFE-SE**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 669

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 23.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-359</b>	<b>333,435</b>	<b>8.3</b>
Total:	<u><b>333,435</b></u>	<u><b>8.3</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>333,435</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2012

Operator Signature: Billy Kuhl Date: **08-07-2012**



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August     01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 710

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-08-2012  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	24,364	0.5
W-1520	0	0.0
W-1522	0	0.0
Total:	<u>24,364</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>24,364</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kukul Date: 09-10-2012

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 03 (MTU03)**  
**AREA TFE-SW**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August 31  
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 702

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2012  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 26.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	24,062	0.5
W-1520	0	0.0
W-1522	0	0.0
Total:	<u>24,062</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>24,062</u>

6. Comments:  
NA.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhn Date: 10-08-2012

Operator Signature: Billy L. Kuhl Date: **08-07-2012**



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August     01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
              16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 710

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-08-2012  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-292</b>	<b>255,191</b>	<b>6.0</b>
<b>W-305</b>	<b>578,385</b>	<b>13.6</b>
Total:	<u><b>833,576</b></u>	<u><b>19.6</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>833,576</b></u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Field Date: 09-10-2012

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 05 (MTU05)**  
**AREA TFE-W**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August 31  
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 701

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2012  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 23.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-292</b>	<b>246,141</b>	<b>6.0</b>
<b>W-305</b>	<b>533,640</b>	<b>12.7</b>
Total:	<u><b>779,781</b></u>	<u><b>18.7</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>779,781</b></u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kulin Date: 10-08-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFF-ELM

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June	<u>29</u>	<u>30</u>																				
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	07	08	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>						

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1903	59,493	1.4	-18.39	76	712
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	53	0.0	0	0	0
W-543-003	889,118	20.6	-1	76	712
W-543-1908	111	0.0	0	0	0
Total:					
	<u>948,775</u>	<u>21.9</u>			

4. Comments:

Facility shutdown 7/6/12 @ 17:55 hrs on high air coil temperature alarm at W-2305. VES 16 was restarted 7/9 @ 07:10 hrs. Facility shutdown 7/11/12, a result of high ambient temperatures affecting facility air temperature thermocouple. Facility was restarted 7/12/12 at 07:10 hrs. Quarterly vapor samples collected 7/30/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-07-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFE-ELM

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

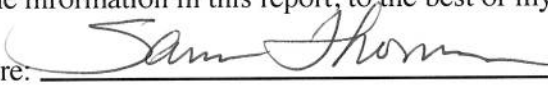
August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                  16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1903	69,894	1.5	-18.36	79	747
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	964,568	21.3	-1.5	79	747
W-543-1908	0	0.0	0	0	0
Total:	<u>1,034,462</u>	<u>22.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 16 (VES16)

### AREA VTFF-ELM

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

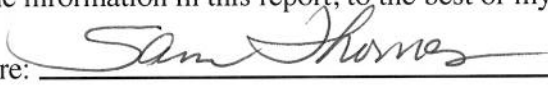
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1903	60,688	1.5	-18.86	72	670
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	867,102	21.4	-1.2	72	670
W-543-1908	0	0.0	0	0	0
Total:	<u>927,790</u>	<u>22.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June	29	30																							
July	01	02	03	04	05	06	07	08	09	<u>10</u>	<u>11</u>	12	13	14	15										
	16	17	18	19	20	21	22	<u>23</u>	24	25	26	27	28	29	30	31									


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	2,036	0.7	-3.9	90	33
W-ETS-2008A	435	0.0	0	0	0
W-ETS-2008B	21,708	8.1	-3.8	90	33
W-ETS-2009	328	0.0	0	0	0
W-ETS-2010A	417	0.0	0	0	0
W-ETS-2010B	1,358	0.0	0	0	1
Total:	<u>26,282</u>	<u>8.8</u>			

4. Comments:

As a result of facility and wellfield totalizers accumulating while facility offline, End Month Cumulative volumes entered for reporting month were calculated from individual extraction well flow measurements. Quarterly vapor samples collected from extraction wells 7/23/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-13-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

August    01 02 03 04 05 **06** **07** 08 **09** **10** 11 12 **13** **14** **15**  
              **16** **17** 18 19 **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

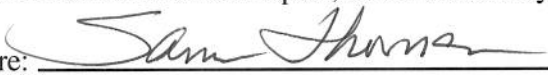
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	32,616	1.3	-8.05	60	342
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	343,057	14.4	-7.85	60	342
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>375,673</u>	<u>15.7</u>			

4. Comments:

Facility operated in "day operations only" mode several days during reporting month as tests were conducted to establish safe operating parameters for new 6.8 HP blower.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-18-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 12 (VES12)

### AREA VTFE-HS

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	61,263	1.6	-9.58	72	676
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	662,007	19.4	-9.14	72	676
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>723,270</u>	<u>21.0</u>			

4. Comments:

Facility operating in test verification mode.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-08-2012



**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

June	<u>30</u>														
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 740

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>06-30-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.2</u>

4. Wellfield Data:

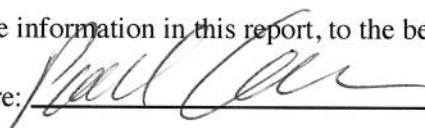
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	<u>289,997</u>	<u>8.5</u>
Total:	<u>289,997</u>	<u>8.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>289,997</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-07-2012

**Land Observation Report date:  
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month July Year 2012

2. Date compliance sampling performed 07-10-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.01</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2012

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

July	<u>31</u>																														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 766

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-09-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	240,739	5.2
Total:	<u>240,739</u>	<u>5.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>240,739</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

**Land Observation Report date:  
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month August Year 2012

2. Date compliance sampling performed 08-09-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.63</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2012

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 01 (GTU01)**  
**AREA TFG-1**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 669

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-18-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 21

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	210,716	5.3
Total:	<u>210,716</u>	<u>5.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>210,716</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2012

**Land Observation Report date:  
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month September Year 2012

2. Date compliance sampling performed 09-18-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>19.13</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>4/ SSW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-24-2012

Operator Signature: Paul Allen Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

July	<u>31</u>																		
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 777

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-09-2012</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.2</u>

4. Wellfield Data:

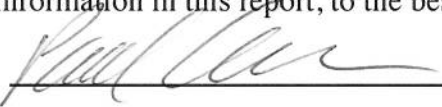
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1806</b>	<b>100,204</b>	<b>2.2</b>
<b>W-1807</b>	<b>185,628</b>	<b>4.0</b>
Total:	<u><b>285,832</b></u>	<u><b>6.2</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>285,832</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012



**Self-Monitoring Report**  
**LLNL Mini Treatment Unit 02 (MTU02)**  
**AREA TFG-N**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-18-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 20.9

4. Wellfield Data:

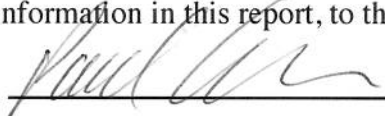
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1806</b>	<b>87,994</b>	<b>2.2</b>
<b>W-1807</b>	<b>160,292</b>	<b>3.9</b>
Total:	<u><b>248,286</b></u>	<u><b>6.1</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>248,286</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-03-2012**

Operator Signature: Billy Kuntel Date: 08-13-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 651

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-08-2012  
Influent pH: 7.4  
Effluent pH: 7.5  
Effluent Temperature (°C): 24.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1309</b>	<b>0</b>	<b>0.0</b>
<b>W-1310</b>	<b>377,187</b>	<b>10.0</b>
Total:	<u><b>377,187</b></u>	<u><b>10.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>377,187</b></u>

6. Comments:

The facility was down from 14:36 on 8/3/12 and restarted at 11:15 on 8/6/12 due to a W-1310 level transducer issue.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy Kistler* Date: 10-09-2012

**Self-Monitoring Report**  
**LLNL Portable Treatment Unit 5 (PTU5)**  
**AREA TF406**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August 31  
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 705

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-13-2012  
Influent pH: 7.5  
Effluent pH: 7.5  
Effluent Temperature (°C): 24

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1309</b>	<b>0</b>	<b>0.0</b>
<b>W-1310</b>	<b>410,091</b>	<b>10.0</b>
Total:	<u><b>410,091</b></u>	<u><b>10.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>410,091</b></u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kird Date: 10-09-2012

Operator Signature: [Signature] Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 03 (GTU03)**  
**AREA TF406-NW**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 741

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-09-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 23.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	185,630	4.3
Total:	<u>185,630</u>	<u>4.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>185,630</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 03 (GTU03)**  
**AREA TF406-NW**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 583

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-18-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 23.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1801</b>	<b>117,280</b>	<b>3.2</b>
Total:	<u><b>117,280</b></u>	<u><b>3.2</b></u>

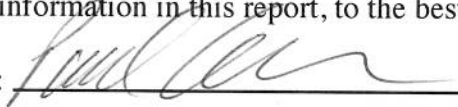
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>117,280</b></u>

6. Comments:

System down 9/16/2012 to 9/18/2012 due to low flow alarm caused by iron bacteria fouling. System secure 9/26/2012 through month end to treat iron bacteria fouling in W-1801.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2012

Operator Signature: Scott Rawlings Date: **07-31-2012**



**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1410</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>0</b></u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-06-2012**

**Self-Monitoring Report**  
**LLNL Solar Treatment Unit 09 (STU09)**  
**AREA TF518-N**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1410</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>0</b></u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-27-2012**

Operator Signature: Sam Shum Date: **08-09-2012**

# Self-Monitoring Report

## LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)

### AREA TF518-PZ

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
                  **16** **17** 18 19 20 21 22 23 24 25 26 **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **501**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1615</b>	<b>66</b>	<b>0.0</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1915</b>	<b>21</b>	<b>0.0</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>87</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>87</b></u>

6. Comments:

Facility secured 8/17/12 to replace defective GFCI outlets powering facility air compressor and extraction unit. Water compliance sampling is not required at this facility, water is transferred to and treated at TFB main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**

**Self-Monitoring Report**  
**LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)**  
**AREA TF518-PZ**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1615</b>	<b>80</b>	<b>0.0</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>
<b>W-518-1915</b>	<b>25</b>	<b>0.0</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>105</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>West Perimeter Drainage Channel</b></u>	<u><b>TFB-R002</b></u>	<u><b>106</b></u>

6. Comments:

Water compliance sampling is not required at this facility, water is transferred to and treated at TFB main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-01-2012**

Operator Signature: Bella Kuhl Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1302-2</b>	<b>0</b>	<b>0.0</b>
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>CRD-1 injection</b></u>	<u><b>W-1302-1</b></u>	<u><b>0</b></u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 09-11-2012

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 1 (CRD1)**  
**AREA TF5475-1**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1302-2</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>CRD-1 injection</b></u>	<u><b>W-1302-1</b></u>	<u><b>0</b></u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kida Date: 10-08-2012



Operator Signature: Aunt Vang Date: 08-06-2012

Operator Signature: Aunt Vin Day Date: 09-05-2012

**Self-Monitoring Report**  
**LLNL GAC Treatment Unit 09 (GTU09)**  
**AREA TF5475-2**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 656

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2012  
Influent pH: 7.0  
Effluent pH: 7.0  
Effluent Temperature (°C): 20.6

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1108</b>	<b>117,610</b>	<b>2.8</b>
<b>W-1415</b>	<b>107</b>	<b>0.0</b>
Total:	<u><b>117,717</b></u>	<u><b>2.8</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>Arroyo Las Positas</b></u>	<u><b>TFC-R003</b></u>	<u><b>117,717</b></u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2012

Operator Signature: Billy Kuhn Date: 08-07-2012

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1604</b>	<b>0</b>	<b>0.0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>
<b>W-1609</b>	<b>0</b>	<b>0.0</b>
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>CRD-2 injection</b></u>	<u><b>W-1610</b></u>	<u><b>0</b></u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 09-11-2012

**Self-Monitoring Report**  
**LLNL Catalytic Reductive Dehalogenation 2 (CRD2)**  
**AREA TF5475-3**

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treated ground water was discharged

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
                  16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
<b>W-1604</b>	<b>0</b>	<b>0.0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>
<b>W-1609</b>	<b>0</b>	<b>0.0</b>
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>CRD-2 injection</b></u>	<u><b>W-1610</b></u>	<u><b>0</b></u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Kuhn Date: 10-10-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	785,950	9.6	-2.86	52	798
W-514-2007A	0	0.0	0	0	0
W-514-2007B	426,978	15.0	-2.51	52	798
Total:	<u>1,212,928</u>	<u>24.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-07-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

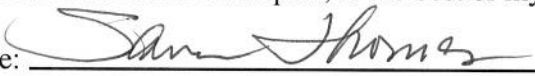
August      **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**  
                  **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	738,320	15.6	-2.62	40	749
W-514-2007A	0	0.0	0	0	0
W-514-2007B	371,288	10.0	-3	40	749
Total:	<u>1,109,608</u>	<u>25.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012



# Self-Monitoring Report

## LLNL Vapor Extraction System 08 (VES08)

### AREA VTF406-HS

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	666,732	15.7	-2.64	65	677
W-514-2007A	0	0.0	0	0	0
W-514-2007B	332,920	10.0	-3.02	65	677
Total:	<u>999,652</u>	<u>25.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-04-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June	<u>29</u>	<u>30</u>																								
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>										

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	474	0.0	0	0	1
W-2207B	464,202	9.9	-5	82	787
W-2208A	815	0.0	0	0	1
W-2208B	347,531	7.1	-4.5	82	787
Total:	<u>813,022</u>	<u>17.0</u>			

4. Comments:

Quarterly vapor samples collected from W-2207A and W-2208A 7/19/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-07-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

August      01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	424,070	9.4	-4.8	79	746
W-2208A	0	0.0	0	0	0
W-2208B	375,877	8.7	-4.3	79	746
Total:	<u>799,947</u>	<u>18.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2012

# Self-Monitoring Report

## LLNL Vapor Extraction System 05 (VES05)

### AREA VTF511

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	369,951	9.1	-4.9	72	670
W-2208A	0	0.0	0	0	0
W-2208B	350,580	8.5	-4.5	72	670
Total:	<u>720,531</u>	<u>17.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-08-2012

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month July Week: 1 Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June 30  
July 01 02 03 04 05 06

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	37,696	3.7	-19.2	70	170
W-518-1913	0	0.0	0	0	170
W-518-1914	0	0.0	0	0	170
W-518-1915	8,150	0.8	-21.5	70	170
SVB-518-201	0	0.0	0	0	170
SVB-518-204	0	0.0	0	0	170
Total:	<u>45,846</u>	<u>4.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-07-2012

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month July Week: 2 Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

July **07** **08** **09** **10** **11** **12** **13**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>35,791</b>	<b>3.6</b>	<b>-19.3</b>	<b>60</b>	<b>166</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>7,954</b>	<b>0.8</b>	<b>-21.6</b>	<b>60</b>	<b>166</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>43,745</b></u>	<u><b>4.4</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month July **Week: 3** Year **2012**

2. Dates (in **bold** and underline ) treatment facility operated


July **14** **15** **16** **17** **18** **19** **20**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>37,429</b>	<b>3.7</b>	<b>-19.2</b>	<b>70</b>	<b>169</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>9,104</b>	<b>0.9</b>	<b>-21.5</b>	<b>70</b>	<b>169</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>46,533</b></u>	<u><b>4.6</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-07-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month July Week: **4** Year **2012**

2. Dates (in **bold** and underline ) treatment facility operated

July        **21** **22** **23** **24** **25** **26** **27**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,236	3.8	-18.6	65	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,056	0.9	-21	65	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<b><u>47,292</u></b>	<b><u>4.7</u></b>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-07-2012**



**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month August Week: 1 Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

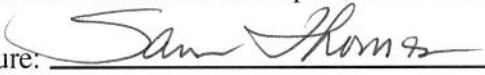
July	<u><b>28</b></u>	<u><b>29</b></u>	<u><b>30</b></u>	<u><b>31</b></u>
August	<u><b>01</b></u>	<u><b>02</b></u>	<u><b>03</b></u>	

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>36,874</b>	<b>3.7</b>	<b>-19</b>	<b>52</b>	<b>166</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>166</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>166</b>
<b>W-518-1915</b>	<b>8,969</b>	<b>0.9</b>	<b>-21</b>	<b>52</b>	<b>166</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>166</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>166</b>
Total:	<u><b>45,843</b></u>	<u><b>4.6</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month August Week: 2 Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

August **04** **05** **06** **07** **08** **09** **10**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,385	3.7	-18.5	58	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,094	0.9	-21.1	58	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u><b>46,479</b></u>	<u><b>4.6</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month August Week: 3 Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

August **11** **12** **13** **14** **15** **16** **17**

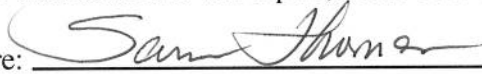
3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>36,919</b>	<b>3.7</b>	<b>-19</b>	<b>62</b>	<b>166</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>8,980</b>	<b>0.9</b>	<b>-21.3</b>	<b>62</b>	<b>166</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>45,899</b></u>	<u><b>4.6</b></u>			

4. Comments:

VTF518 and TF518 PZ secured 8/17 to replace 2 120VAC GFCI power outlets powering facility air compressor and vacuum unit.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-10-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month August **Week: 4** Year **2012**

2. Dates (in **bold** and underline ) treatment facility operated

August      18   19   20   21   22   23   24   25   26   **27**   **28**   **29**   **30**   **31**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>21,730</b>	<b>3.6</b>	<b>-19.3</b>	<b>62</b>	<b>101</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>5,432</b>	<b>0.9</b>	<b>-21.6</b>	<b>62</b>	<b>101</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<b><u>27,162</u></b>	<b><u>4.5</u></b>			

4. Comments:

Facility secured 8/17 to replace faulty GFCI power outlets and to perform current measurements on extraction unit motor. Facility operations resumed 8/27 @ 08:35 hrs.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2012**

# Self-Monitoring Report

## LLNL Vapor Extraction System 19 (VES19)

### AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 1 Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September **01** **02** **03** **04** **05** **06** **07**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>36,242</b>	<b>3.7</b>	<b>-19</b>	<b>56</b>	<b>163</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>7,836</b>	<b>0.8</b>	<b>-22</b>	<b>56</b>	<b>163</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>44,078</b></u>	<u><b>4.5</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-01-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month September Week: 2 Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September **08** **09** **10** **11** **12** **13** **14**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>37,163</b>	<b>3.7</b>	<b>-19</b>	<b>53</b>	<b>167</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>9,040</b>	<b>0.9</b>	<b>-21.9</b>	<b>53</b>	<b>167</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>46,203</b></u>	<u><b>4.6</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-01-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month September **Week: 3** Year **2012**

2. Dates (in **bold** and underline ) treatment facility operated

September **15** **16** **17** **18** **19** **20** **21**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>38,847</b>	<b>3.8</b>	<b>-18.5</b>	<b>60</b>	<b>170</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>9,201</b>	<b>0.9</b>	<b>-21.5</b>	<b>60</b>	<b>170</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>48,048</b></u>	<u><b>4.7</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-04-2012**

**Self-Monitoring Report**  
**LLNL Vapor Extraction System 19 (VES19)**  
**AREA VTF518-PZ**

1. Reporting Period: Business Month September **Week: 4** Year **2012**

2. Dates (in **bold** and underline ) treatment facility operated

September **22** **23** **24** **25** **26** **27** **28**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-1615</b>	<b>36,763</b>	<b>3.7</b>	<b>-19</b>	<b>54</b>	<b>166</b>
<b>W-518-1913</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1914</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-518-1915</b>	<b>8,942</b>	<b>0.9</b>	<b>-21.5</b>	<b>54</b>	<b>166</b>
<b>SVB-518-201</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVB-518-204</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total:	<u><b>45,705</b></u>	<u><b>4.6</b></u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-01-2012**



# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month July Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

June	30																	
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15			
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-ETS-507</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2211</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2212</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2302</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2303</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVI-ETS-504</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total:</b>	<b><u>0</u></b>	<b><u>0.0</u></b>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<b><u>VTF5475 Vapor Injection Well</u></b>	<b><u>SVI-ETS-505</u></b>	<b><u>0</u></b>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: **08-07-2012**

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month August Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-ETS-507</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2211</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2212</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2302</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2303</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVI-ETS-504</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<hr/>					
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>VTF5475 Vapor Injection Well</b></u>	<u><b>SVI-ETS-505</b></u>	<u><b>0</b></u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-11-2012**

# Self-Monitoring Report

## LLNL Vapor Extraction System 01 (VES01)

### AREA VTF5475

1. Reporting Period: Business Month September Year 2012

2. Dates (in **bold** and underline ) treatment facility operated

September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
<b>W-ETS-507</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1605</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-1608</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2211</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2212</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2302</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>W-2303</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SVI-ETS-504</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<hr/>					
Total:	<u><b>0</b></u>	<u><b>0.0</b></u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u><b>VTF5475 Vapor Injection Well</b></u>	<u><b>SVI-ETS-505</b></u>	<u><b>0</b></u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy Kulin* Date: **10-08-2012**

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## **Attachment C**

### **Figures**

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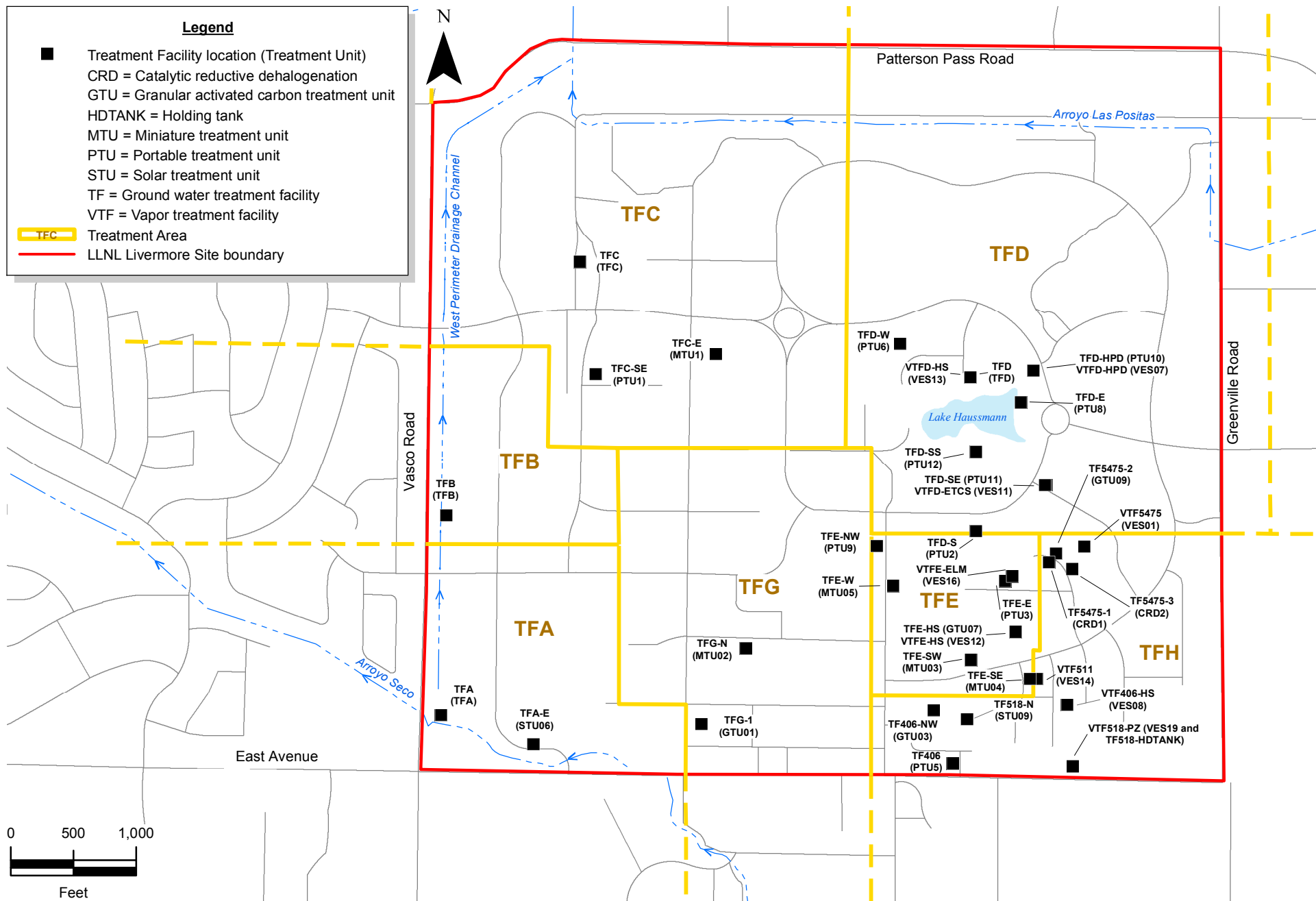
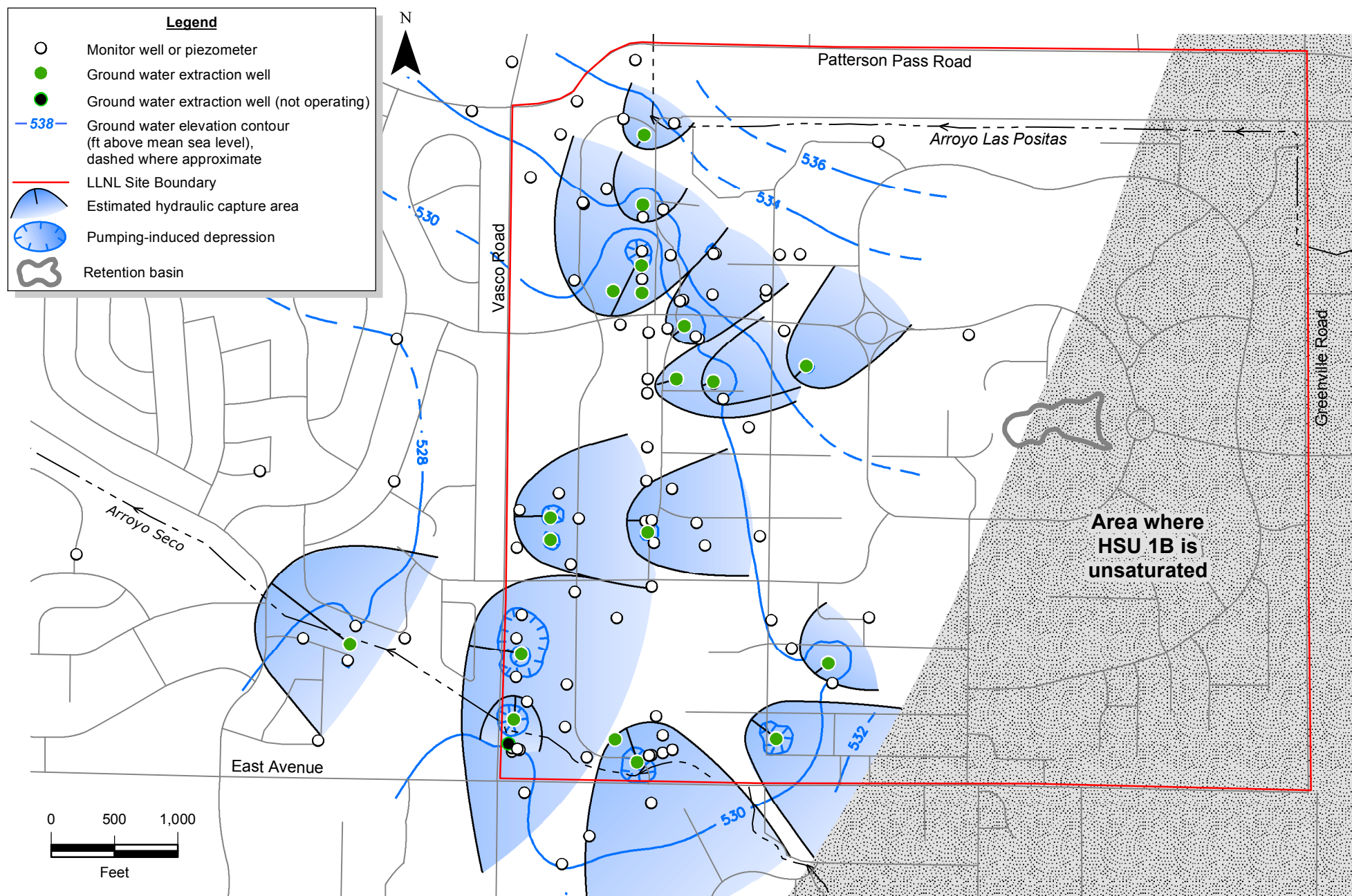


Figure 1. Livermore Site treatment areas and treatment facility locations.



**Figure 2. Ground water elevation contour map based on 111 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.**

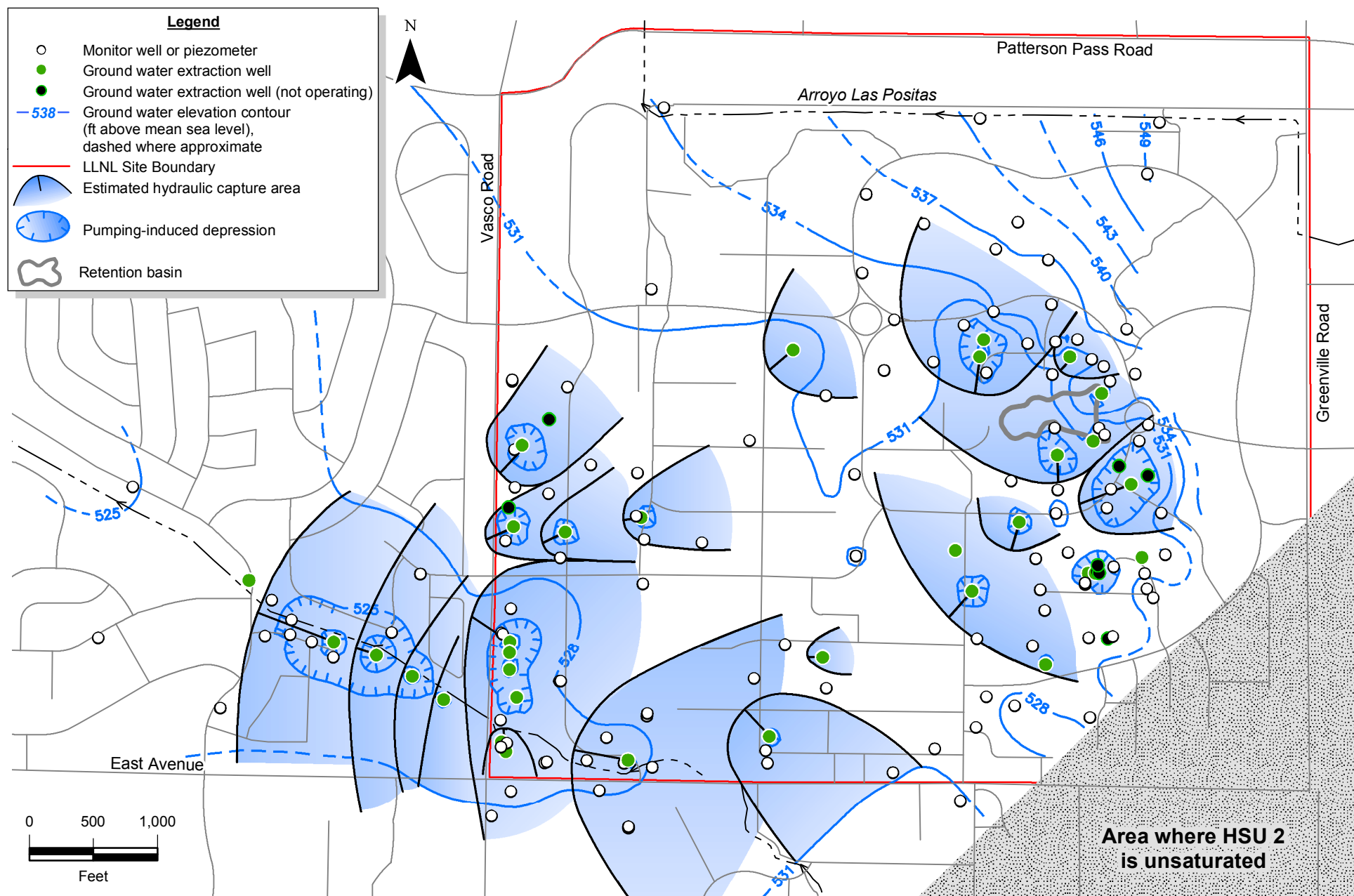


Figure 3. Ground water elevation contour map based on 164 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.



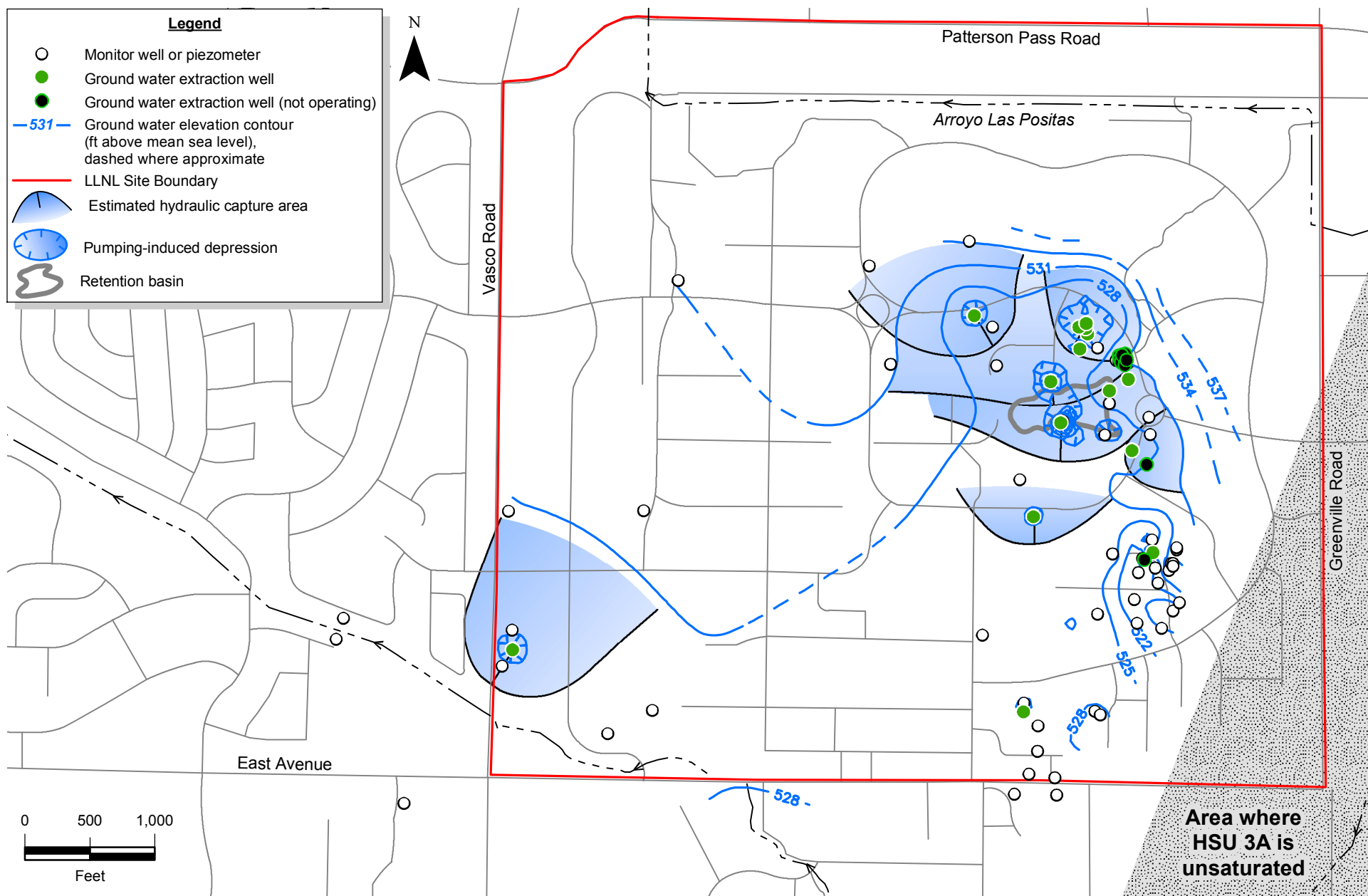


Figure 4. Ground water elevation contour map based on 79 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.



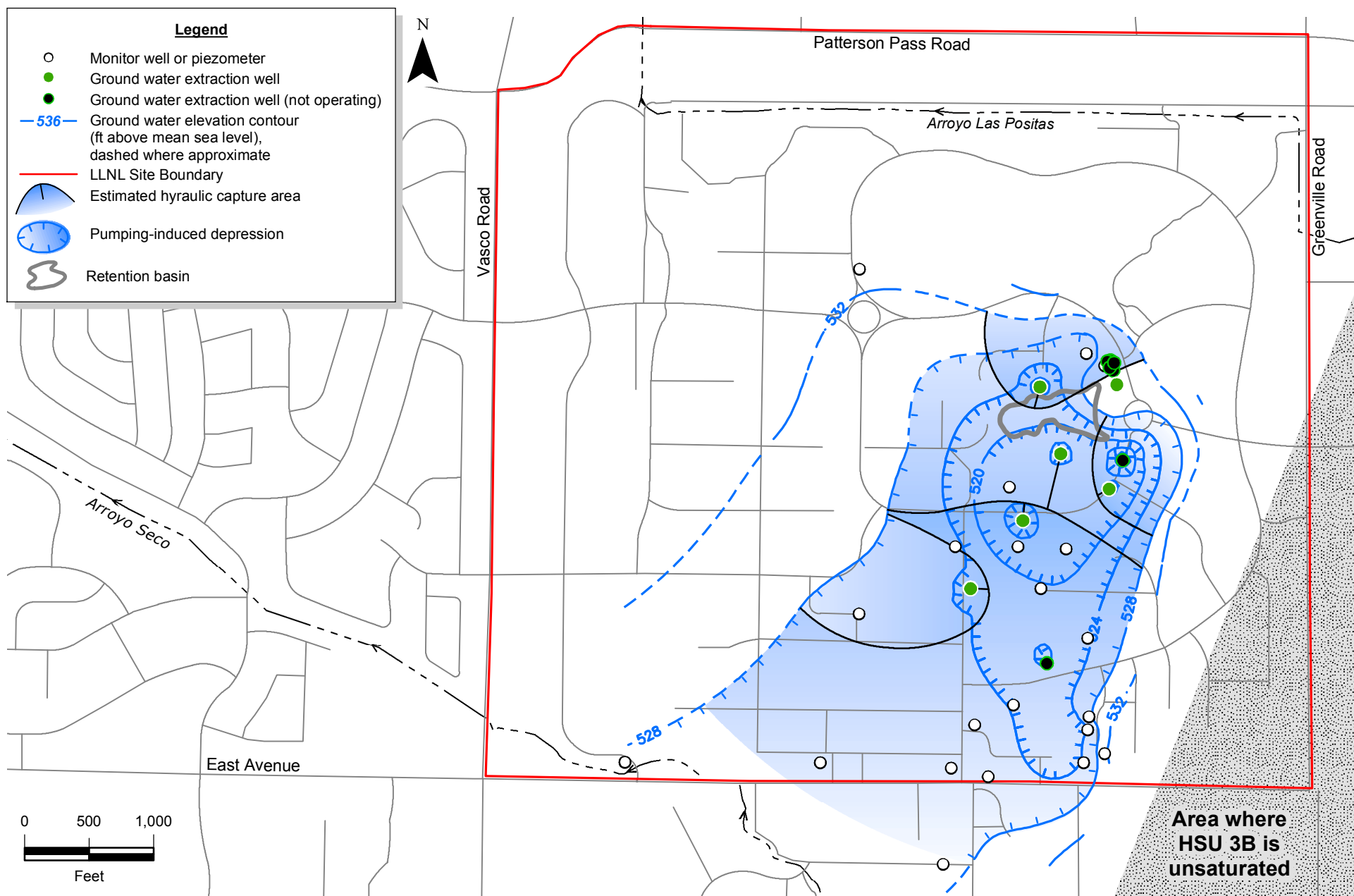
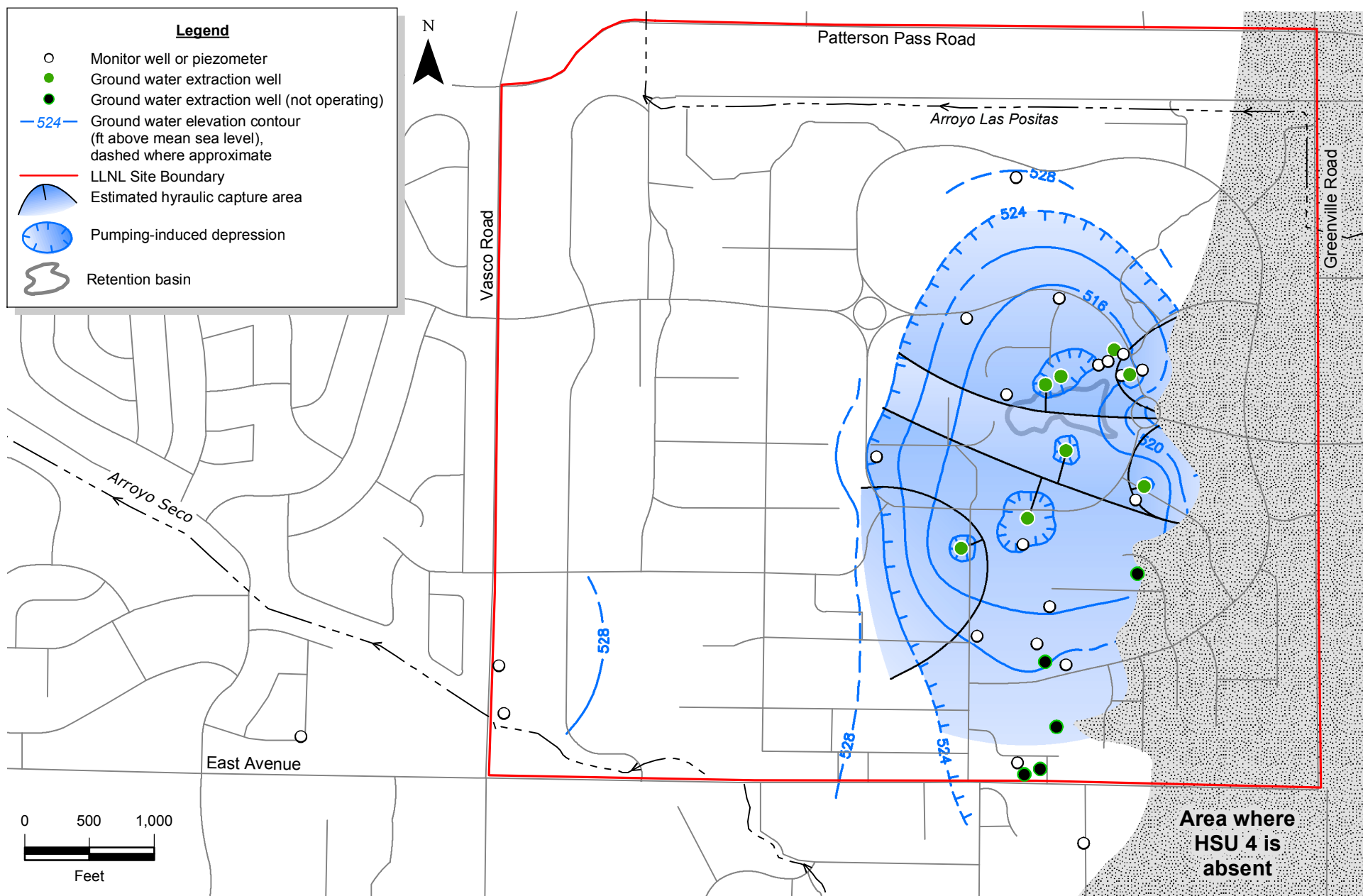
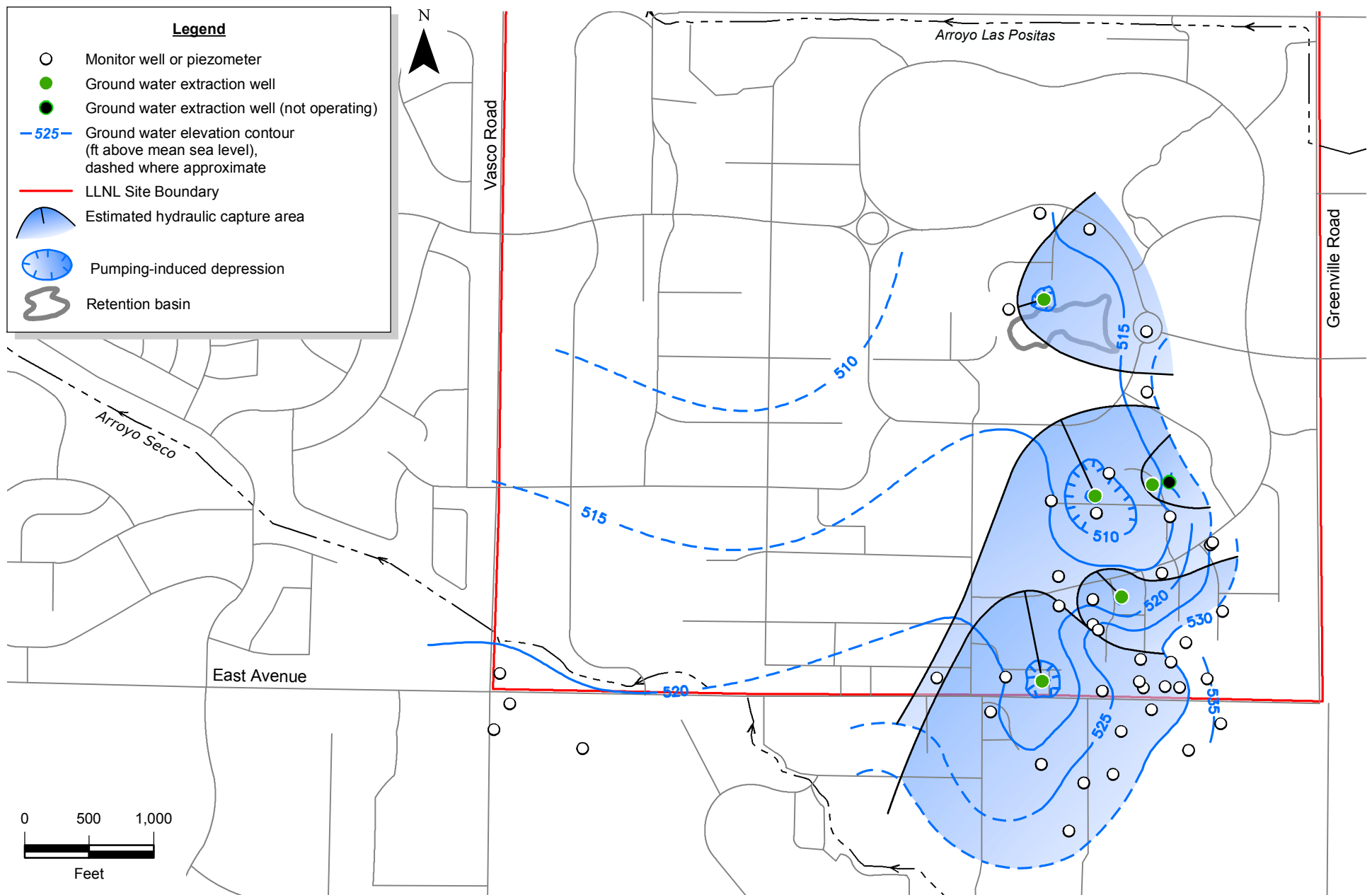


Figure 5. Ground water elevation contour map based on 35 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.



**Figure 6. Ground water elevation contour map based on 34 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.**



**Figure 7. Ground water elevation contour map based on 49 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2012.**